PERSONALITY TRAITS AND JOB SATISFACTION AMONG NURSES WORKING IN EMERGENCY AND PSYCHIATRIC DEPARTMENTS

SONET FITCHAT

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DECLARATION

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ABSTRACT

Personality traits influence individuals to choose certain careers. Although much research has been done on the personality traits of nurses in general, very little research has been done on the personality traits of nurses within specific nursing fields, and none has been done in South Africa. Research demonstrates some evidence of personality trait differences between nurses employed in different fields, and that it may affect their levels of job satisfaction.

A quantitative correlational study was conducted to determine the correlation between the personality traits and levels of job satisfaction of nurses working in emergency and psychiatric departments in public and private hospitals in the Northern and Southern suburbs of Cape Town, South Africa.

The study included six emergency departments and three psychiatric departments in seven hospitals. All categories of nurses working in emergency departments (n_E = 221) and psychiatric departments (n_P = 120) were included in the sample. Forty nurses working in emergency departments (18.1%) and 41 nurses working in psychiatric departments (34.2%) responded to the study.

Two established questionnaires, the *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction* were provided to respondents. Descriptive and inferential statistical analyses were conducted on the results. Data had a nonparametric distribution, thus Spearman's rank correlation coefficient (ρ) was used to calculate correlations. The guideline for determining significance was 5% ($p < 0.05$).

The results of this study indicated that the majority of respondents working in emergency departments had low *psychic trait anxiety*, low *stress susceptibility,* low *lack of assertiveness,* low *impulsiveness,* high *adventure-seeking* and low *detachment.* Most of them reported being either neutral or satisfied with their jobs. Moderate to strong correlations were found between their *psychic trait anxiety*, *stress susceptibility* and their job satisfaction.

The majority of respondents working in psychiatric departments who participated in this study had low *stress susceptibility,* low *lack of assertiveness,* low *impulsiveness,* and high *adventure-seeking.* Most of them reported being either neutral or satisfied

with their jobs. No correlations were found between their personality traits and job satisfaction.

The results may indicate that nurses with specific personality traits are more suited to specific nursing fields. Nurses could be assessed for these traits during the job interview process, and guided to the nursing fields most suited to their personalities.

Keywords: emergency, psychiatric, mental health, nurse, personality traits, job satisfaction, *Swedish universities Scales of Personality*, *Measure of Job Satisfaction*

OPSOMMING

Persoonlikheidseienskappe beïnvloed individue om sekere beroepe te kies. Alhoewel baie navorsing gedoen is oor die persoonlikheidseienskappe van verpleegkundiges in die algemeen, is daar baie min navorsing, en geen in Suid-Afrika gedoen oor die persoonlikheidseienskappe van verpleegkundiges binne spesifieke verpleegspesialiteite nie. Navorsing toon bewyse van verskille tussen persoonlikheidseienskappe by verpleegkundiges werksaam in verskillende spesialiteite, en dat dit hulle werkbevrediging mag beïnvloed.

'n Kwantitatiewe korrelasiestudie was uitgevoer om die verhouding tussen die persoonlikheidseienskappe en die vlakke van werkbevrediging van verpleegkundiges werksaam in nood- en psigiatriese afdelings van openbare en privaat hospitale in die Noordelike en Suidelike voorstede van Kaapstad, Suid-Afrika, te bepaal.

Die studie het ses noodafdelings en vier psigiatriese afdelings in sewe hospitale ingesluit. Die studie se steekproef het alle vlakke van verpleegkundiges werksaam in noodafdelings ($n_E = 221$) en psigiatriese afdelings ($n_P = 120$) ingesluit. Veertig verpleegkundiges werksaam in noodafdelings (18.1%) en 41 verpleegkundiges werksaam in psigiatriese afdelings (34.2%) het aan die studie deelgeneem.

Twee gevestigde vraelyste, die *Swedish universities Scales of Personality* en die *Measure of Job Satisfaction* was aan deelnemers verskaf. Beskrywende en inferensiële statistiese analises was op die resultate uitgevoer. Data het 'n nie-parametriese verspreiding gehad, en Spearman se rangkorrelasiekoëffisiënt (ρ) was gebruik om ooreenkomste te bereken. Die maatstaf om beduidendheid te toon was 5% ($p < 0.05$).

Resultate van die studie het getoon dat die meeste deelnemers werksaam in noodafdelings, lae *psigiese eienskap angs* (*psychic trait anxiety)*, lae *stresvatbaarheid* (*stress susceptibility),* lae *gebrek aan selfgeldendheid (lack of assertiveness),* lae *impulsiwiteit (impulsiveness),* hoë *avontuurlustigheid (adventure-seeking)* en lae *onaangeraaktheid* (*detachment)* gehad het. Meeste van hulle was óf neutraal óf tevrede met hul werk. Matige na sterk ooreenkomste was gevind tussen hul *psigiese eienskap angs*, *stresvatbaarheid* en hul werktevredenheid.

Die meeste deelnemers werksaam in psigiatriese afdelings het lae *stresvatbaarheid,* lae *gebrek aan selfgeldendheid,* lae *impulsiwiteit* en hoë *avontuurlustigheid* gehad. Meeste van hulle was óf neutraal óf tevrede met hul werk. Geen ooreenkomste was gevind tussen hul persoonlikheidseienskappe en hul werktevredenheid nie.

Die resultate mag aandui dat verpleegkundiges met sekere persoonlikheidseienskappe meer aangelê is vir sekere verpleegspesialiteite. Verpleegkundiges se persoonlikheidseienskappe kan gedurende die onderhoudproses bepaal word, en verpleegkundiges na die mees gepaste spesialiteite gelei word.

Sleutelwoorde: nood, psigiatriese, geestesgesondheid, verpleegster, persoonlikheid, werktevredenheid, *Swedish universities Scales of Personality*, *Measure of Job Satisfaction*

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
df	Degrees of freedom
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit
Kurt	Kurtosis
n_E	Sample of nurses working in emergency departments
NHS	National Health Service
n_P	Sample of nurses working in psychiatric departments
SANC	South African Nursing Council
SD	Standard deviation
SE	Standard error
Sig	Level of significance
sk	Skewness
USA	United States of America

CHAPTER 1
FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Nurses who experience high levels of job dissatisfaction are more likely to seek alternative employment (Coetzee, Klopper, Ellis & Aiken, 2013:163). The current high turnover rates and global shortage of nurses are resulting in large expenditures for health facilities and decreased patient care in hospitals (Duffield, Roche, Homer, Buchan & Dimitrelis, 2014:2703; Aiken, Sloane, Bruyneel, Van den Heede & Sermeus, 2013:146). Nurses with particular personality traits have been shown to experience more job satisfaction when working in certain fields, which may influence turnover rates (Meeusen, Van Dam, Brown-Mahoney, Van Zundert & Knape, 2011:162).

This chapter outlines the rationale behind the study of the correlation between personality traits and job satisfaction of nurses, and the research objectives and methodology of this study.

1.2 RATIONALE

According to the World Health Organisation there is a shortage of over nine million nurses and midwives worldwide (World Health Organisation, 2016:39). A recent nationwide study in the United States of America (USA) (NSI Nursing Solutions, Inc., 2016:10) found that Registered Nurses working in psychiatric departments have the highest, and Registered Nurses working in emergency departments the second-highest turnover rates; and both groups are considered to be a scarce skill by the Department of Higher Education and Training (2016:15) in South Africa.

The global nursing shortage coupled with high nurse turnover rates can partially be attributed to job dissatisfaction (Coetzee *et al*., 2013:163). As nurses with particular personality traits may experience more job satisfaction when employed in particular nursing fields (De la Fuente-Solana, Gómez-Urquiza, Cañadas, Albendín-García, Ortega-Campos & Cañadas-De la Fuente, 2017:91; Geuens, Leemans, Bogaerts, Van Bogaert & Franck, 2015b:30-31; Gomez-Cantorna, Clemente, Fariña-Lopez, Estevez-Guerra & Gandoy-Crego, 2015:343, 346), it is important to ensure that nurses are well suited to their chosen nursing fields.

The personality traits assessed in this study were chosen based on previous research that have examined similar traits in nurses, and this study may add to the existing body of knowledge.

1.3 PROBLEM STATEMENT

There is a shortage of nurses in South Africa, with high turnover rates and high levels of burnout. Internationally nurses in specialized fields such as emergency and psychiatry have been shown to have the highest and second-highest turnover rates, and are also considered a scarce skill in South Africa. These issues may in part be due to an incompatibility between the personality profiles of nurses and their nursing fields. It is unknown whether there are any correlations between the personality profiles of nurses working in emergency and psychiatric departments, and their levels of job satisfaction.

The study was undertaken in the Western Cape province of South Africa as the population per qualified nurse in the Western Cape (202:2) is comparable to the population per qualified nurse in South Africa (197:1) (South African Nursing Council, 2017:1-2), and as the researcher is situated in the Western Cape.

1.4 RESEARCH AIM

The aim of this study was to determine whether there are any correlations between the personality traits of all categories of nurses working in emergency and psychiatric departments and their levels of job satisfaction.

1.5 RESEARCH OBJECTIVES

- To assess selected personality traits of nurses working in emergency departments and psychiatric departments.
- To assess levels of job satisfaction of nurses working in emergency departments and psychiatric departments.
- To determine which personality traits are related to higher levels of job satisfaction in nurses working in emergency departments and psychiatric departments.

1.6 RESEARCH QUESTION AND HYPOTHESES

The research question which guided the implementation of this study is: Are there any correlations between the personality traits and levels of job satisfaction experienced by nurses working in emergency and psychiatric departments?

The following null hypotheses for each specialty and personality trait were tested:

1. There is no correlation between *psychic trait anxiety* and job satisfaction among nurses working in emergency departments.
2. There is no correlation between *stress susceptibility* and job satisfaction among nurses working in emergency departments.
3. There is no correlation between *lack of assertiveness* and job satisfaction among nurses working in emergency departments.
4. There is no correlation between *impulsiveness* and job satisfaction among nurses working in emergency departments.
5. There is no correlation between *adventure-seeking* and job satisfaction among nurses working in emergency departments.
6. There is no correlation between *detachment* and job satisfaction among nurses working in emergency departments.
7. There is no correlation between *psychic trait anxiety* and job satisfaction among nurses working in psychiatric departments.
8. There is no correlation between *stress susceptibility* and job satisfaction among nurses working in psychiatric departments.
9. There is no correlation between *lack of assertiveness* and job satisfaction among nurses working in psychiatric departments.
10. There is no correlation between *impulsiveness* and job satisfaction among nurses working in psychiatric departments.
11. There is no correlation between *adventure-seeking* and job satisfaction among nurses working in psychiatric departments.
12. There is no correlation between *detachment* and job satisfaction among nurses working in psychiatric departments.

1.7 CONCEPTUAL FRAMEWORK

The conceptual framework which guided the progress of the study utilised Trait Theory (Corr & Matthews, 2009:89) to underpin the examination of selected personality traits and Herzberg's Two-Factor Model (Herzberg, Mausner & Snyderman, 1959:80) to examine the job satisfaction of nurses working in emergency and psychiatric departments.

1.7.1 Trait Theory

Trait theory proposes that the ways in which individuals think, feel and behave are influenced by their underlying personality traits, and has its origins in the lexical approach (Corr & Matthews, 2009:93). The lexical approach was pioneered by Sir Francis Galton who realised that personality traits are closely related to the words used to describe them (Galton, 1884:181). Galton proposed that the importance of particular personality traits correlate with the frequency with which the words are used, and that when a specific personality trait has many synonyms, the differences in meaning between those words tend to be more important (Maltby, Day & Macaskill, 2010:158). He identified and listed about 1,000 adjectives in the English language that described various personality traits (Corr & Matthews, 2009:93).

Galton's work was furthered by Gordon Allport. Allport theorised that individuals possess particular dispositions which predispose them to think, feel and behave in distinct ways. He proposed that an objective description of an individual's behaviour, which tends to remain relatively stable across time and situations, would allow for discernment of that individual's underlying personality traits (Allport & Odbert, 1936:12-13). Trait theorists consider these traits to be mostly independent of external factors such as rewards and pressures. For instance, a person who has a kind disposition would act in a kind manner in most situations, regardless of whether they would be rewarded for it or not (Willmott, Mojtahedi, Ryan, Sherretts, Simpson & Dlamini, 2017:15).

Individuals have varying degrees of each personality trait (Corr & Matthews, 2009:96), and trait theorists aim to develop systematic methods to categorise and assess traits that have similar underlying dimensions. This has led to the use of statistical techniques such as factor analysis and correlation analysis to assess personality traits (Maltby *et al.*, 2010:157). Individuals possess varying levels of each personality trait

(Corr & Matthews, 2009:96), and these traits can be categorised and quantified using statistical methods (Maltby *et al*., 2010:157).

Numerous psychometric tests have been designed to assess personality traits, and they can also be used to establish whether there are any relationships between personality traits and other variables (Willmott *et al*., 2017:13). These tests are usually self-report forms, which commonly use Likert scales to assess the extent to which the participant agrees with a statement related to a specific personality trait (Saucier & Srivastava, 2012:5). Personality tests are used worldwide, as discussed in more detail in section 3.6.2.1.

1.7.2 Herzberg's Two-Factor Theory

Job satisfaction is one of the most researched topics related to work, regardless of sector. Individuals' job satisfaction depends on various factors such as the amount of interest they have in their work, whether they consider their work to be rewarding, the quality of their work relationships, and the amount of stress they experience (Ioannou, Katsikavali, Galanis, Velonakis, Papadatou & Sourtzi, 2015:324).

Herzberg studied the factors which caused employees to feel satisfied or dissatisfied with their work. He discovered that intrinsic factors, such as feelings of accomplishment, increased employees' feelings of satisfaction. He labelled these factors "motivation factors". He also discovered that extrinsic factors, such as salary and supervision, caused feelings of dissatisfaction. He labelled these factors "hygiene factors" (Nelson & Quick, 2010:160-161; Norton, 2008:51-52; Herzberg *et al*., 1959:80).

Intrinsic factors which foster job satisfaction are focused on the job itself, i.e. the kind of work that is done, the amount of responsibility that is assumed, feelings of achievement and recognition for doing the work, possibilities for promotion, and adequate compensation for doing the work (Norton, 2008:52). Extrinsic factors which foster job dissatisfaction include poor administration, insufficient supervision, unsatisfactory relationships with supervisors, inadequate salary, and unsatisfactory working conditions (Norton, 2008:52).

Herzberg concluded that the presence of motivation factors led to job satisfaction, but that their absence led to demotivation, not dissatisfaction (Nelson & Quick,

2010:160-162). The absence of hygiene factors led to dissatisfaction, but their presence only led to an absence of dissatisfaction, not satisfaction (Murugan, 2013:33).

Figure 1.1 illustrates how the presence and absence of motivation and hygiene factors correlate with the level of satisfaction experienced.

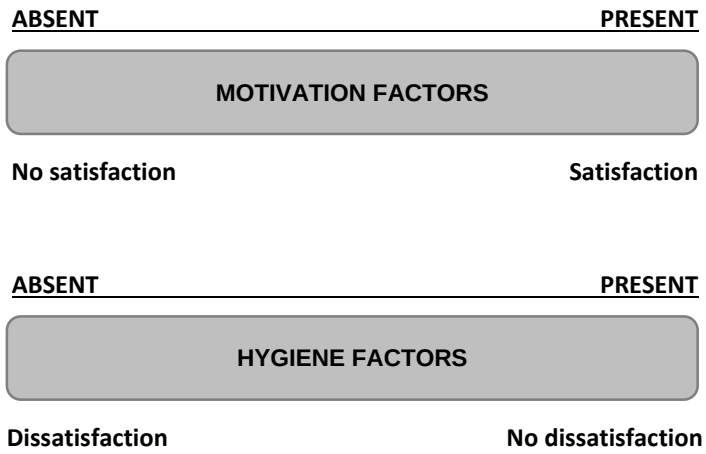


Figure 1.1: Herzberg's two-factor theory
Adapted from: Herzberg *et al*. (1959:81)

1.7.3 The theoretical framework

Selected personality traits of nurses working in emergency and psychiatric departments were examined with the *Swedish universities Scales of Personality*, and their job satisfaction was assessed with the *Measure of Job Satisfaction*. This is presented in Figure 1.2. Any correlations between personality traits and level of job satisfaction in either of the specialty fields may indicate that nurses with those personality traits are well suited to that specialty.

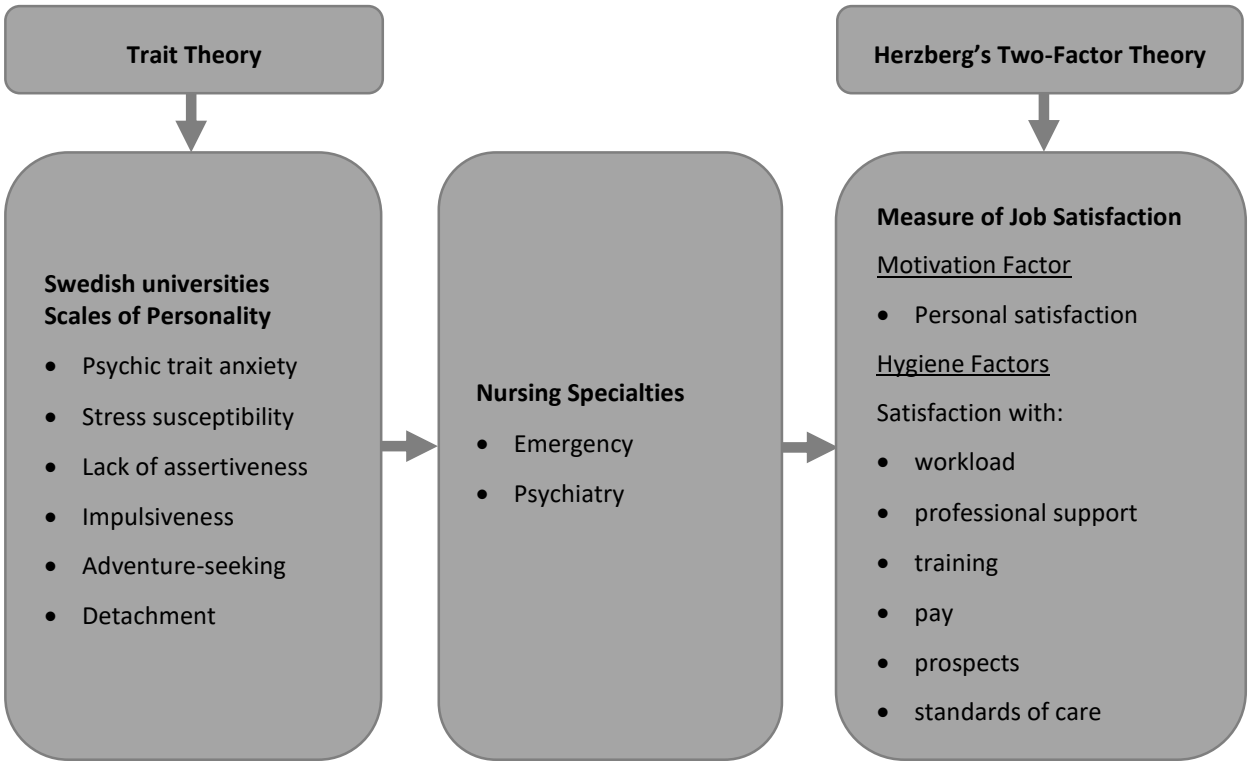


Figure 1.2: The theoretical framework

(Developed by the researcher - S Fitchat, based on the scales taken from the Swedish universities Scales of Personality for this study (Gustavsson, Bergman, Edman, Ekselius, von Knorring & Linder, 2000:219) and the Measure of Job Satisfaction (Traynor & Wade, 1993:127))

1.7.4 Nursing specialties

Nurses working in emergency and psychiatric departments were examined in this study, as they have been found to have the highest turnover rates in the USA, and are also considered a scarce skill in South Africa, as discussed in section 1.2.

1.8 RESEARCH METHODOLOGY

An overview of the research methodology is provided here, and a more detailed description will follow in Chapter 3.

1.8.1 Research design

This study used a quantitative, non-experimental, cross-sectional, descriptive correlational research design to determine the correlation between the personality

traits and levels of job satisfaction of nurses working in emergency and psychiatric departments.

1.8.2 Study setting

The study was conducted at six emergency departments and three psychiatric departments in seven hospitals situated in the Northern and Southern suburbs of Cape Town. Four of the hospitals were from the public sector, and three were from the private sector. Four of the hospitals offer both emergency and psychiatric services, two offer only emergency services, and one offers only psychiatric services. In order to ensure anonymity, the relevant hospitals and departments and are only referred to according to their codes, as further discussed in section 3.3.

1.8.3 Population and sampling

The target population of nurses working in emergency departments in this study included all categories of nurses employed in public and private hospitals with an emergency department in the Northern and Southern suburbs of Cape Town. The target population of nurses working in psychiatric departments in this study included all categories of nurses employed in public and private hospitals with a psychiatric department in the Northern and Southern suburbs of Cape Town. The researcher contacted the hospitals and clinics included in the target population, but was not able to obtain the numbers of nurses working in the relevant departments from all the facilities. Therefore, it is not possible to provide the number of nurses in the target population of this study.

1.8.4 Instrumentation

Respondents completed a general information form containing selected demographic variables. The tools which were used to collect data from respondents were two paper-based self-report questionnaires: the *Swedish universities Scales of Personality*, (Appendices 8 & 9) and the *Measure of Job Satisfaction* (Appendices 10 & 11). Permission to use the questionnaires in this study was obtained from the authors of both instruments (Appendices 12 & 13).

In order to locate the most appropriate instruments to assess the personality traits and job satisfaction of respondents, the researcher conducted a literature search, and the

Swedish universities Scales of Personality and the *Measure of Job Satisfaction* were identified as being the most relevant, reliable and accessible, as discussed in section 3.8.1. Both questionnaires are available in English, and were also translated into Afrikaans and isiXhosa for this study.

1.8.5 Pilot study

A pilot study was conducted in order to refine the research methodology and design, and to acquaint the researcher with the respondents, methodology and questionnaires (Burns & Grove, 2015:45). An initial statistical analysis was done using the data that were collected. The results of the analysis confirmed the feasibility of the study and allowed the researcher to determine that the data collection instruments and plan were adequate. The results from the pilot study were not included in the final results.

1.8.6 Reliability and validity

The reliability of an instrument is related to the consistency with which it measures a concept or construct, and the validity of an instrument is related to the accuracy with which it measures a concept or construct (LoBiondo-Wood & Haber, 2018:263-264). The internal consistency of the *Swedish universities Scales of Personality* was confirmed by using Cronbach's alpha (α) coefficients and mean inter-item correlations (Gustavsson *et al*., 2000:220), and its concurrent validity was confirmed by the *Revised NEO-PI-R* personality test (Aluoja, Voogne, Maron, Gustavsson, Võhma & Shlik, 2009:234). The internal consistency of the *Measure of Job Satisfaction* was confirmed using Cronbach's α coefficients and the test-retest method (Traynor & Wade, 1993:132), and its concurrent validity was confirmed by a Price Waterhouse instrument (Traynor & Wade, 1993:132). The face validity and readability of the questionnaires were assessed by the supervisors of this study, by the lecturers of the Department of Nursing and Midwifery of Stellenbosch University, and by the respondents in the pilot study.

1.8.7 Data collection

The researcher personally delivered and collected the questionnaires to and from the nurses in the selected hospitals. Data collection took place from 4 May 2018 to 9 July 2018.

1.8.8 Data analysis

Two statisticians from the Department of Biostatistics at the Tygerberg campus of Stellenbosch University were consulted for the data analysis and interpretation. The data were entered into the computer program *Microsoft® Excel® 2013*, and then cross-checked for any errors and missing data. The data were then analysed using *Excel®* and *IBM® Statistical Package for the Social Sciences® (SPSS®) 25*.

Descriptive statistics were used to analyse the demographic variables of the sample. The average scores of each personality trait and job satisfaction subscales were calculated separately for nurses working in emergency departments and nurses working in psychiatric departments, and the distribution of data was found to be nonparametric. Spearman's rank correlation coefficient (ρ) was therefore used to calculate the correlations between the personality traits and job satisfaction subscales.

1.9 ETHICAL CONSIDERATIONS

The manner in which the researcher sought to protect the health, dignity, integrity, right to self-determination, privacy and confidentiality of the respondents in this study (World Medical Association, 2013, para. 9) is outlined below.

1.9.1 Internal review boards

This research proposal was reviewed for approval by the Health Research Ethics Committee of Stellenbosch University (S17/10/204) (Appendix 4). Prior to the implementation of the study, consent was also obtained from the Western Cape Government and the management and heads of department of the selected hospitals (Appendix 5).

1.9.2 Beneficence

The principle of beneficence requires healthcare practitioners to protect the rights of those under their care, and to prevent harm from occurring to them (Burns, 2014:218). If any respondents had experienced any negative responses to answering the questionnaires, they would have been referred to their workplace's counselling facility. However, none of the respondents reported experiencing psychological distress as a result of the questionnaires.

Respondents did not receive financial compensation for taking part in the study, but a small snack was provided to those who completed the questionnaire as compensation for their time, and to reduce fatigue if they answered the questionnaires during their breaks. The questionnaires were not completed while nurses were on duty, in order not to compromise patient care. The nurses who participated in this study may benefit indirectly by feeling satisfied that they have contributed to an area of research. The study may have triggered the curiosity of some nurses to examine their own personalities in more detail and to determine whether they may be more suited to working in a different nursing field where they may feel more fulfilled.

1.9.3 Privacy, anonymity and confidentiality

Paragraph 24 of the Declaration of Helsinki states that researchers need to ensure the privacy and confidentiality of research respondents (World Medical Association, 2013). Anonymity of respondents was ensured as the research study did not collect any identifying information, such as respondents' names or email addresses. The study only collected general information such as gender, age, job title, whether respondents work in the public or private sector, and whether respondents work in an emergency department or a psychiatric department. The names of the participating hospitals are not reported in this study, and the hospitals and departments are only referred to according to their codes. All data are reported in aggregate. Electronic data are stored on a password-protected computer. Completed questionnaires and consent forms will be kept in a secure, locked cabinet for five years after completion of the study. After five years the questionnaires and forms will be destroyed, and the electronic information deleted.

1.9.4 Informed consent

The researcher personally explained the essential information regarding the study to respondents. The researcher also personally issued the questionnaires and informed consent forms to respondents (Appendices 6, 7, 8 & 10), with opaque envelopes in which responses were sealed after completion. The consent forms were kept separate from the questionnaires to ensure anonymity. In order not to compromise patient care, respondents were allowed to complete the questionnaires at home. A sealed box was left in each department in which nurses could insert their completed responses, and

the box was collected by the researcher after one week. Completed forms were collected between 4 May 2018 and 9 July 2018 (see Table 3.6).

The researcher ensured the confidentiality of the respondents by not discussing the responses of individual questionnaires with anyone not directly related to the processing of the information, such as the study supervisors and statistician.

The principle of autonomy requires healthcare practitioners to respect the rights of individuals to think and act as they see fit (Pera & Van Tonder, 2011:70). This would include allowing respondents to freely decide whether or not to partake in the study without any coercion from the researcher. This is also a requirement of the World Medical Association (2013, para. 25) and the principle of non-maleficence, which requires healthcare practitioners not to inflict harm on those in their care (Pera & Van Tonder, 2011:56), and which could occur if respondents are coerced. Participation in the study was strictly voluntary, and respondents were allowed to withdraw at any time with no negative consequences, even after they had agreed to take part.

Since research respondents should be given the option to be notified of the outcome of the study (World Medical Association, 2013, para. 26), the researcher will publish a summary of the findings on http://research.cluedapp.co.za when the study has been completed. The copyright belongs to Stellenbosch University and will be indicated on the website. The website URL was given to each research participant, and they were informed that the results should be posted by the end of 2018.

1.10 OPERATIONAL DEFINITIONS

Enrolled Nurse

An Enrolled Nurse implements the nursing regimen prescribed by a Registered Nurse, and acts under the direct or indirect supervision of the Registered Nurse. Duties include monitoring vital signs and observing how patients respond to medication and treatment (South African Nursing Council, 1991:n.p.).

Enrolled Nursing Assistant

An Enrolled Nurse Assistant implements the nursing regimen prescribed by a Registered Nurse, and acts under the direct or indirect supervision of the Registered Nurse. Duties include taking vital signs and promoting patient hygiene (South African Nursing Council, 1991:n.p.).

Job satisfaction:

Job satisfaction is the extent to which individuals' work bring them enjoyment and fulfilment (Judge, Weiss, Kammeyer-Mueller & Hulin, 2017:357). In this study, *personal satisfaction*, *satisfaction with workload*, *satisfaction with professional support*, *satisfaction with training*, *satisfaction with pay*, *satisfaction with prospects*, *satisfaction with standards of care*, and *overall satisfaction* were assessed with the *Measure of Job Satisfaction*.

Nurses who work in emergency departments:

Nurses who work in emergency departments assess, triage and manage patients who present at the emergency department (Wolf, Delao, Perhats, Moon & Carman, 2017:429). In this study, nurses working in emergency departments included Registered Nurses, Enrolled Nurses and Enrolled Nursing Assistants with more than six months experience working in an emergency or trauma department.

Nurses who work in psychiatric departments:

Nurses who work in psychiatric departments manage mental health problems and psychiatric disorders (Varcarolis, 2013:3). In this study, nurses who work in psychiatric departments included Registered Nurses, Enrolled Nurses and Enrolled Nursing Assistants with more than six months experience working in a psychiatric department.

Personality traits:

Personality traits are unique qualities in individuals' characters which cause consistent patterns in the way they think, feel and behave (Willmott *et al*., 2017:13). In this study, *psychic trait anxiety*, *stress susceptibility*, *lack of assertiveness*, *impulsiveness*, *adventure-seeking*, and *detachment* were assessed with the *Swedish universities Scales of Personality*.

Registered Nurse

A Registered Nurse diagnoses health needs and prescribes a nursing regimen to take care of patient needs. Duties include implementing treatment programs and administering medication (South African Nursing Council, 1991:n.p.). A Registered Nurse may also be called a Professional Nurse (Masters, 2015:332).

1.11 DURATION OF THE STUDY

Ethical approval was obtained from the Health Research Ethics Committee at Stellenbosch University on 16 January 2018 (Appendix 4). Approval from the management of the selected hospitals was obtained between February and June 2018 (Appendix 5). Data collection took place from 4 May 2018 to 9 July 2018, and data analysis from 16 July 2018 to 27 July 2018. Language and technical editing was completed on 28 August 2018 (Appendix 18). The final thesis was submitted for examination on 31 August 2018.

1.12 CHAPTER OUTLINE

Chapter 1: Foundation of the study

This chapter outlines the research aim, conceptual framework, research methodology and ethical considerations.

Chapter 2: Literature review

This chapter provides a review of recent literature pertaining to the study.

Chapter 3: Research methodology

This chapter provides greater detail of the research methodology outlined in Chapter 1 and how it was employed in the study.

Chapter 4: Results

This chapter presents the results of the study.

Chapter 5: Discussion, conclusions and recommendations

In this chapter the results are discussed, and conclusions and recommendations are presented.

1.13 SIGNIFICANCE OF THE STUDY

Very limited research has been done on the relationship between the personality traits and job satisfaction of nurses employed in different nursing fields. This study will contribute to the current body of knowledge and could be used to assist nurses in choosing the most appropriate specialty according to their personality types. This

information could be utilised to limit the number of nurses leaving their positions, reduce overall staffing expenditure, and contribute to the continuity of patient care.

1.14 SUMMARY

Chapter 1 discussed the research aims, research objectives, and conceptual framework of this study. It presented an outline of the research methodology and detailed the ethical considerations of the study. A comprehensive review of the literature is provided in Chapter 2.

1.15 CONCLUSION

Nurses employed in emergency and psychiatric departments display the highest turnover rates of all nursing fields, which could, in part, be due to job dissatisfaction. There may be relationships between the personality traits and job satisfaction of nurses, which, if considered, may assist nurses in choosing the specialty best suited to their personalities.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

Increasing nurse turnover rates is a growing international problem and is contributing to considerable financial losses in the health sector as well as affecting the quality of patient care (Duffield *et al.*, 2014:2710). High nurse turnover rates have been found to be strongly correlated with a lack of job satisfaction (Coetzee *et al*., 2013:163). The relationship between personality traits and job aptitude has been well researched, and it has been found that people with particular personality traits experience more job satisfaction when employed in specific work contexts (Meeusen *et al.*, 2011:162).

In this chapter, the background of nursing shortages, nurse turnover rates, and their associated effects are discussed. It is followed by a review of articles examining the personality traits and job satisfaction of general nurses and nurses working in specific nursing fields. The work environments of nurses working in emergency and psychiatric departments conclude this chapter.

2.2 BACKGROUND

2.2.1 Nursing staff shortages

According to the World Health Organisation, there is a global shortage of over nine million nurses and midwives (World Health Organisation, 2016:39). In the United Kingdom, 83% of 90 organisations that were surveyed by the National Health Service (NHS) in 2014 reported nursing shortages. Approximately 10% of all nursing posts in the United Kingdom were not permanently filled, and 42% of specialised posts had remained unfilled for three to six months, with 20% having remained unfilled for more than six months (NHS Employers, 2014:3, 14).

Similarly, over 10% of nursing posts in 32.9% of hospitals in the USA that were surveyed were also not permanently filled (NSI Nursing Solutions, Inc., 2016:1). This is a sharp increase from 2012, when 59.5% of hospitals in the USA reported that less than 5% of nursing posts were not permanently filled (NSI Nursing Solutions, Inc., 2016:6).

Australia is also experiencing a serious national shortage of nurses. In 2012 it was reported that the country needed an additional 109,000 nurses, which is 27% of the total Australian nursing workforce, in order to meet hospital needs (Health Workforce Australia, 2012:iii).

The World Health Organisation reported that the country with the highest international ratio of nurses and midwives is Canada, which has 92.9 nurses per 10,000 population. South Africa's ratio of 51.1 per 10,000 population (World Health Organisation, 2015:120), makes for a poor comparison, as it is just over half of Canada's ratio.

South African health services are divided into public and private sectors. It is estimated that the public sector provides healthcare to 62% - 72% of the population, and that approximately 62% of nurses are employed in this sector. The remaining 38% of nurses work in the private sector, serving 28% - 38% of the population (Econex, 2013:29). In South Africa there is a shortage of 25,504 Registered Nurses in the public sector alone (Public Service Sector Education and Training Authority, 2012:10), and Registered Nurses in nearly all specialties, including emergency and psychiatric departments, are in high demand (Department of Higher Education and Training, 2016:15). Data from Mediclinic International (2015:55), a private hospital group in South Africa, also indicate a 16% shortage of senior registered nurses, an 18% shortage of registered nurses and a 23% shortage of Enrolled Nurses in its hospitals, which further underscores the extent of the shortage of nurses in South Africa.

2.2.2 Nurse turnover rates

Nursing shortages are increasingly causing hospitals to pay more attention to nurse turnover rates (Duffield *et al*., 2014:2704). Turnover is the rate at which employees resign from their places of employment (Oxford Dictionaries, 2017).

The following studies indicate that the turnover rates of nurses worldwide are consistently high. Duffield *et al.* (2014:2703) compared the turnover rates of all nursing categories in Australia, New Zealand, Canada and the USA. They ascertained that turnover rates are the lowest in Australia (15.1%) and the highest in New Zealand (44.3%). Canada's turnover rates (19.9%) were close to those of Australia, with the USA's turnover rates (26.8%) being at roughly midpoint.

NSI Nursing Solutions, Inc. (2016:11) documented the turnover rates of each nursing category in the USA, and it was evident that higher qualifications were related to lower turnover rates. Certified nursing assistants had the highest turnover rates (23.8%), followed by Registered Nurses (17.2%), nurse anaesthetists (5.4%) and advanced nurse practitioners (8.5%). The lower turnover rates of nurses with higher qualifications is thought to be related to the greater job satisfaction associated with increased autonomy and responsibility. Over the period of 2014 - 2015, 57.2% of Registered Nurses working in psychiatric departments and 42.8% of Registered Nurses working in emergency departments changed employment in the USA, and without intervention the entire Registered Nurse staff of these specialties will turnover every 3.7 - 5.3 years (NSI Nursing Solutions, Inc., 2016:10).

A national survey conducted in the USA found that newly hired nurses had the highest turnover rates. In this survey, nearly a third (28.9%) of all new hires changed employment within one year, and over half (56.4%) of all nursing staff who changed employment had less than two years' experience (NSI Nursing Solutions, Inc., 2016:12).

South Africa's second largest private healthcare provider, Life Healthcare Group, reported that the turnover of nurses in its hospitals is 17%, which is comparable with Australia and Canada's rates, but which is still considered to be high (Life Healthcare Group, 2014:68). A study conducted on primary healthcare nurses working in the South African public sector reported that half of the nurses included in the study intended to resign within two years, with about a third considering moving abroad (Delobelle, Rawlinson, Ntuli, Malatsi, Decock & Depoorter, 2011:372, 378).

2.2.3 Nurse turnover cost

High staff turnover considerably increases hospitals' expenses, with the greatest expense being the hiring of temporary staff to fill vacant positions until permanent employees are appointed (Duffield *et al.,* 2014:2705). NSI Nursing Solutions, Inc. (2016:7) found that it can take between 54 and 109 days to fill a Registered Nurse position, depending on the specialty.

Duffield *et al.* (2014:2708) calculated that the average turnover cost of each nurse in the USA is $20,561, in New Zealand it is $23,711 and in Canada $26,652. Turnover

cost in Australia was found to be $48,790 per nurse and is ascribed to higher termination and temporary replacement costs. A study done by NSI Nursing Solutions, Inc. (2016:1) found that the average replacement cost of a USA nurse is $37,700 - $58,400, which is a much larger amount than reported by Duffield *et al*. (2014:2708). USA hospitals spend an average of $5,200,000 - $8,100,000 per year on nursing replacement costs (NSI Nursing Solutions, Inc., 2016:1).

The Irish Nurses and Midwives Organisation also reported that there was a financial loss of $103,260 - $110,144[1] for each nurse and midwife who had obtained a four-year nursing degree but later left the nursing profession (Keating, 2013:4).

2.2.4 Effects of high nurse turnover rates on patient care

Nursing positions left vacant due to high turnover rates result in an increased workload for the remaining staff, and can lead to important nursing tasks not being done, as well as decreased patient care (Aiken *et al*., 2013:146; Duffield, Diers, O'Brien-Pallas, Aisbett, Roche, King *et al.*, 2011:252). It has also been found that even a seemingly small increase in nurses' workload of one patient increased the likelihood of a patient in that ward dying within 30 days of admission by 7% (Aiken, Sloane, Bruyneel, Van den Heede, Griffiths, Busse *et al*., 2014:1824).

2.3 FACTORS INFLUENCING THE JOB SATISFACTION OF NURSES

A Swedish study found that the greatest motivational factor for nurses to remain within an organisation was strong affective commitment such as group cohesiveness, and a commitment and compatibility with the nursing profession. They also observed that nurses were willing to receive a lower salary if they felt compatible with the department where they were employed, and that the greatest motivational factors for nurses to leave their jobs were unfulfilled expectations, and lack of educational opportunities or specialised job roles (Lukins & Bergman, 2017:59).

A Japanese study examined the role of the psychological contract that nurses have with their employers and compared it with their turnover intentions. The psychological contract involves the mutual obligations and contributions from the organisation and the nurse. Nurses who felt that the psychological contract with their organisations was

[1] Based on the Jan 2014 exchange rate of €1 = $1.3768.

not fulfilled were more likely to consider leaving the organisation. The strongest indicator of turnover intention was lack of perceived opportunities for career advancement within the organisation (Takase, Teraoka & Yabase, 2016:24). A Chinese study also found that nurses who experienced a lack of work support were more likely to consider finding new employment (Yang, Liu, Liu & Zhang, 2015:134).

A UK study has found that personality plays a significant role in individuals' decisions to enter the nursing profession. The primary motivator of respondents to become nurses was a desire to care for others (Crick, Perkinton & Davies, 2014:12). Interestingly, an Australian study found that the majority of complaints against nurses facing tribunal cases in New South Wales was that they lack empathy. The researchers point out that the selection criteria of nursing programs only take academic achievement into consideration, and not qualities such as empathy and caring. They recommend nursing educators to support the development of such qualities in nursing students in order to improve their professional practice (Doyle, Hungerford & Cruickshank, 2014:1069, 1072).

A study conducted on Taiwanese nursing students examined which personality traits may influence their success in becoming competent nursing practitioners. They found that students with high e*xtraversion* scores also scored higher on maturity, *self-efficacy* and professional skills. Students with high *neuroticism* scores were negatively associated with maturity, and students who scored higher on an instrument that assessed dishonesty were related to less professional skill and lower academic performance. The researchers suggest that the most suitable candidates for nursing programs are individuals who are extraverted, resistant to emotional distress, and have a smaller inclination to social conformity (Li & Su, 2014:176, 180). Another study conducted on Taiwanese nurses found significant positive correlations between *conscientiousness*, emotional stability and nurses' intent to remain in nursing (Chen, Perng, Chang & Lai, 2016:34).

Regulation 425 of 22 February 1985 (Republic of South Africa, 1985) requires student nurses in South Africa to be exposed to a wide range of clinical settings, and this exposure may allow them to realise in which nursing fields they would prefer to work. However, an Australian study which examined the experiences of new nurse graduates found that some new Registered Nurses often enjoyed the rotations they did not choose, more than the rotations they did choose (Parker, Giles, Lantry &

McMillan, 2014:154). This may indicate that the experience of working in a ward as a student and working in a ward as a Registered Nurse is different, and that clinical exposure alone as a student may not be enough for nurses to decide in which specialty to work after graduating.

2.4 SELECTING AND REVIEWING THE LITERATURE

Recent literature on the personality traits and job satisfaction of nurses was examined to determine the current knowledge and gaps in knowledge regarding the personality traits of nurses, and the relationship between their personality traits and their levels of job satisfaction.

2.4.1 Review method

A database search was conducted to obtain relevant literature. As the obtained literature contained a broad range of methodologies and aims, personality theories and tests, the most appropriate method to examine them was considered to be the integrative review method (Whittemore & Knafl, 2005:547-548). The integrative review method is utilised when the literature under review includes diverse methodologies and purposes. Articles that were identified in the database search were screened for eligibility and subsequent inclusion as outlined in a modified Prisma Flow diagram (Moher, Liberati, Tetzlaff & Altman, 2009:267), provided in Appendix 1.

2.4.2 Identification of articles

An initial database search was conducted in March 2017, followed by a further search in December 2017, and a final search in July 2018. The final search yielded no additional relevant articles. First, the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database was searched using the following keywords: personality, personality trait, characteristic, nurse, nursing, job satisfaction, work satisfaction, employee satisfaction, and burnout. Burnout is an emotional response to chronic workplace stressors, and consists of the facets *emotional exhaustion*, *depersonalisation*, and a lack of *personal accomplishment* (Maslach, Schaufeli & Leiter, 2001:397). Since one of the facets of burnout is *personal accomplishment*, which may be similar to the job satisfaction aspect *personal satisfaction*, it was

considered appropriate to include studies which assess burnout in this literature review.

Current guidelines for academic studies recommend including articles published in the preceding five years (LoBiondo-Wood & Haber, 2018:64). As the initial database search was completed in 2017, the search was limited to articles published between 2012 and 2017. A final search was conducted in July 2018, to determine if any further relevant studies had been published.

The initial CINAHL search was limited to articles for which the full text was available in English. The CINAHL search produced a large number of articles that were not relevant to the current study, and those results were used to adapt the keywords when searching subsequent databases. Keywords “Student” and “Personality disorder” were excluded, and keywords were limited to those appearing in abstracts. The search was further limited by including the terms “Nurse” or “Nursing” in all searches. The refined CINAHL search yielded a total of 618 articles. The search results are presented in Table 2.1.

Table 2.1: CINAHL database search results

Keywords	**Nurse OR Nursing (111,147)**	**“Job satisfaction” OR “Work satisfaction” OR “Employee satisfaction” (3,322)**	**Burnout (2,122)**
Personality OR “Personality trait” OR “Personality type” OR Characteristic (10,250)	511	53	54

Searches were then also conducted in the Medline, ProQuest, Wiley Online Library, and ScienceDirect databases. The total database search results are presented in Table 2.2.

Table 2.2: Total database search results

Database	Number of articles
CINAHL	618 articles
Medline	161 articles
ProQuest	100 articles
Wiley Online Library	170 articles
ScienceDirect	32 articles
Total	1,081 articles

Searches were also conducted in Clinicaltrials.gov, New York Academy of Medicine grey literature, Open Grey, OpenDOAR, SUN Scholar and the Virginia Henderson Global Nursing e-Repository for unpublished articles, clinical trials, research in progress, and theses and dissertations, but no relevant articles were located.

2.4.3 Screening, eligibility and inclusion of articles

The titles and abstracts of the 1,081 articles were screened for relevance to the study topic, and only articles investigating the personality traits of nurses, and its relationship to job satisfaction or burnout were included. Only original research was included, so literature reviews and integrative reviews were excluded. As the current study only examined qualified nurses, articles that involved student nurses were excluded. After the initial screening, duplicates were removed and additional articles located in relevant articles' reference lists, which resulted in 53 articles.

The full abstracts of the 53 articles were then reviewed in more detail. Articles that did not indicate a clear relationship between the personality traits of nurses and job satisfaction or burnout were excluded. Only articles with the full text written in English were considered eligible, and were retained. One landmark study which was conducted in 2011 was identified. It had included a large number of nurses, and had been completed in the preceding ten years, so it was considered acceptable for inclusion. Twenty-five articles were removed according to the above criteria, and 29 articles remained. The full texts of the remaining 29 articles were read and assessed for eligibility according to a critical appraisal tool (Appendix 2). Fifteen articles were excluded as they did not study the relationship between personality traits and/or burnout, or they included a mixed sample of nurses and other health professionals.

The screening process resulted in 14 articles being identified as appropriate for inclusion in the literature review.

2.4.4 Synthesis of results

Seven research articles included either general hospital nurses, or nurses employed in a variety of different nursing fields, and the samples of seven articles included nurses from specific nursing fields, such as oncology, public health, midwifery, anaesthesia, Intensive Care Units (ICUs) and emergency departments. The literature review presents the findings of the articles according to the above groupings. While the studies demonstrate some differences in the personality traits of nurses working in different specialties, it is not possible to create a definite profile for each nursing specialty as the data are very limited and different instruments and study protocols were used across the studies. A summary of the findings of the 14 articles included in the literature review can be found in Appendix 3. Cronbach's α coefficient values of above 0.70 indicate acceptable reliability of instruments (LoBiondo-Wood & Haber, 2018:273), and the articles included in the literature review reported that the instruments used in their studies had Cronbach's α coefficients of above 0.70.

2.5 THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND JOB SATISFACTION OF GENERAL NURSES

The results of the studies concerning general nurses that had been identified in the database search are discussed below. Various instruments had been utilised to assess the personality traits of respondents and will be mentioned briefly in each section. Most of the studies utilised the *Maslach Burnout Inventory* to assess burnout, with three studies having utilised the *Professional Quality of Life Scale*. The extent to which the nurses in the relevant articles felt satisfied with their jobs was assessed with either the *Job Satisfaction Scale* or with instruments created by the authors.

2.5.1 Traits assessed with "Big Five" instruments

The "Big Five" is a respected personality model encompassing five broad personality traits: o*penness to experience*, c*onscientiousness*, e*xtraversion*, *agreeableness*, and *neuroticism* (Gomez-Cantorna *et al*., 2015:344), each of which is discussed separately below. The articles reporting on the "Big Five" personality traits of general nurses

included in this review administered either the *NEO Five-Factor Inventory* or the *Big Five Personality Inventory*, which assess the five traits mentioned above.

2.5.1.1 Openness to Experience

A person who is open to new experiences is characteristically creative and receptive to new ideas (Toegel & Barsoux, 2012:54). A Belgian study found that general hospital nurses who have more *openness to experience* possess a greater sense of *personal accomplishment* (Geuens, Van Bogaert & Franck, 2017:4629). This may be because individuals who are open to different experiences are able to work independently, tolerate ambiguity, and to positively use humour to cope with stressful situations, and therefore experience their work more positively (Cañadas-De La Fuente, San Luis, Garcia, Cañadas, De La Fuente & Vargas, 2015:242).

2.5.1.2 Conscientiousness

Conscientiousness is related to people's level of commitment to their work; it includes the degree of structure people prefer (Toegel & Barsoux, 2012:54) and the amount of impulse control they possess (Gomez-Cantorna *et al*., 2015:342). Geuens *et al.* (2017:4627-4629) reported that Belgian nurses who displayed greater amounts of *conscientiousness* were more likely to experience a sense of *personal accomplishment*. Similarly, a Singaporean study reported that nurses who displayed low *conscientiousness* were more likely to experience low *personal accomplishment*. Individuals who are conscientious tend to be more persistent and disciplined at achieving their goals, which may cause them to enjoy more success (Ang, Dhaliwal, Ayre, Uthaman, Fong, Tien *et al*., 2016:2, 5).

2.5.1.3 Extraversion

Extraversion is a preference for individuals to focus on the world around them, which includes people and objects (Jafrani, Zehra, Zehra, Ali, Mohsin & Azhar, 2017:521). Extraverted individuals typically display active and energetic behaviour, are social, expressive, and authoritative, and are associated with positive emotions (Gomez-Cantorna *et al*., 2015:342). It has been found that nurses who tend to have average and above average e*xtraversion* scores experience more *personal accomplishment* when compared to less extraverted nurses. As extraverted individuals enjoy a faster

pace of life, easily converse with strangers, and thrive in noisy environments, they are able to succeed in bustling hospital environments where they regularly meet new people (Ang *et al*., 2016:4, 5).

2.5.1.4 Agreeableness

Individuals with a high score in *agreeableness* tend to be supportive and helpful to others (Kennedy, 2014:9) and also to be social, altruistic and affectionate (Gomez-Cantorna *et al*., 2015:342). Ang *et al*. (2016:4, 5) conducted a study in Singapore which found that nurses who rated low in *agreeableness* experienced a low sense of *personal accomplishment*. They ascribe this finding to the fact that agreeable individuals tend to place the needs of others before themselves, and that they feel content when others are taken care of.

2.5.1.5 Neuroticism

Neuroticism refers to an individual's emotional instability and fear. Individuals with high levels of *neuroticism* have a tendency to worry, and to feel unhappy and unsafe (Geuens *et al.,* 2017:4624). Ang *et al*. (2016:5) and Geuens *et al.* (2017:4629) reported that nurses with high *neuroticism* scores also tended to have lower levels of *personal accomplishment*. Individuals with neurotic personality traits view the world in a pessimistic manner and interpret events negatively, and may dwell on their internal affective states instead of attending to their work (Geuens *et al.,* 2017:4630).

2.5.2 Traits assessed with the *Dutch Interpersonal Behaviour Scale*

A Belgian study utilised the *Nederlandse Interpersoonlijke Handelingen Schaal (Dutch Interpersonal Behaviour Scale*) which assesses the behaviour of individuals in relation to others. As discussed in section 1.7.1, personality traits are assessed based on the behaviours that individuals display, therefore the article utilising the *Dutch Interpersonal Behaviour Scale* was considered appropriate to this review.

The *Dutch Interpersonal Behaviour Scale* contains two axes. The vertical axis assesses an individual's degree of dominance over others, and individuals range from *submissive* to *dominant*. *Submissive* individuals tend to defer to others, whereas *dominant* individuals seek to control those around them. The horizontal axis assesses an individual's degree of friendliness towards others, which ranges from *friendly* to

hostile. Persons who are considered *friendly* enjoy close relationships, whereas those who are considered *hostile* do not. Individuals are classified according to where their scores lie on the two axes - *dominant, dominant-friendly, friendly, submissive-friendly, submissive, submissive-hostile, hostile*, and *dominant-hostile* (Geuens *et al.*, 2017:4625-4626; Ling, Zhang, Locke, Li, & Li, 2016:310; Fu, Op Den Akker & Bruijnes, 2014:2).

2.5.2.1 Hostile Behaviour

The Belgian study reported that *hostile* behaviour in nurses was positively correlated with *personal accomplishment*. Geuens *et al.* (2017:4627, 4630) argue that since *personal accomplishment* is related to *self-efficacy*, *hostile* individuals may display a critical attitude towards others, thus inducing greater confidence in their own abilities and accomplishments. However, Beck, Davis and Freeman (2015:19-20) reason that *hostile* behaviour may be a reaction to perceived threats of a psychological nature, such as rejection or evaluation. Therefore, nurses who reported *hostile* behaviour and high *personal accomplishment* may in fact have low *personal accomplishment*, but report high *personal accomplishment* to hide their feelings of inadequacy.

2.5.3 Traits assessed with the *General Self-Efficacy Scale*

The *General Self-Efficacy Scale* assesses how confident people are that they are able to perform the required course of action in a specific situation (Wang, Liu & Wang, 2015:80, 84).

2.5.3.1 Self-efficacy

Wang *et al.* (2015:84) reported that nurses with a greater sense of *self-efficacy* have a greater sense of *personal accomplishment*, since they are motivated to work more positively.

2.5.4 Traits assessed with the *Spielberger State-Trait Anxiety Inventory Form*

The *Spielberger State-Trait Anxiety Inventory* assesses *trait-negative affect*, which is a tendency to consistently experience negative emotions in a variety of settings (Craigie, Osseiran-Moisson, Hemsworth, Aoun, Francis, Brown *et al*., 2016:91).

2.5.4.1 Trait-negative affect

A study on trait-negative Australian nurses demonstrated that there is a significant positive correlation between *trait-negative affect* and a decreased professional quality of life, since such individuals tend to experience emotional distress in difficult situations and do not manage their emotional responses effectively (Craigie *et al*., 2016:92).

2.5.5 Traits assessed with the *Type D Personality Scale*

Individuals with *type A personalities* tend to be more aggressive, competitive and impatient. Individuals with *type B personalities* are usually not driven to achieve, not easily irritated, and do not experience much stress and pressure. *Type C personality* is not considered an actual personality type anymore but used to be linked to individuals with cancer. Individuals with *type C personalities* were thought to include the ability to isolate emotional distress beyond their conscious awareness, despite it causing measurable physical effects on their bodies (Moryś, Bellwon, Jeżewska, Adamczyk & Gruchała, 2015:558). *Type D ("Distressed") personality* is characterised by a tendency to experience negative emotions and not express them, which causes chronic stress within the person. A Korean study assessed *Type D personality* in nurses with the *Type D Personality Scale* (Kim, Kim, Kim, Kim, Kim & Kim, 2017:906).

2.5.5.1 Type D ("Distressed") personality

Kim *et al*. (2017:908) have observed a relationship between nurses with *type D personalities* and significantly decreased job satisfaction. Geuens, Braspenning, Van Bogaert and Franck (2015a:80, 84) also reported a negative correlation between *type D personality* and the burnout dimension *personal accomplishment*. They also reported that nurses with *type D personality* are five times more likely to experience burnout, compared to other personality types. Nurses with *type D personalities* may experience their workplaces as being more stressful, and their inability to cope effectively with this stress may lead to a decreased ability to perform their jobs well (Kim *et al*., 2017:907).

2.5.6 Summary of personality traits and job satisfaction of general nurses

General nurses who demonstrated higher levels of *openness to experience*, *conscientiousness*, *hostile* behaviour and *self-efficacy* reported more *personal*

accomplishment, although *hostile* behaviour may in fact be linked to less *personal accomplishment*. General nurses who displayed *type D personality*, *trait-negative affect, neuroticism*, and less *conscientiousness*, e*xtraversion* and *agreeableness*, reported either less *personal accomplishment* or less job satisfaction.

2.6 THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND NURSING SPECIALTY

Different nursing specialties have different work content, work environments, patient populations and stressors, therefore nurses from different specialties display differences in their occupational well-being (Adriaenssens, 2014:2). It has been suggested that nurses with particular personality traits find greater job satisfaction working in some nursing fields as opposed to others, however research in this field is very limited (Kennedy *et al.*, 2014:2).

2.6.1 Oncology nurses

A Spanish study using the *NEO Five-Factor Inventory* and the *Maslach Burnout Inventory* found that for oncology nurses, *neuroticism* was negatively correlated with *personal accomplishment*, and *agreeableness*, *conscientiousness*, e*xtraversion* and *openness to experience* were positively correlated with *personal accomplishment* (De la Fuente-Solana *et al*., 2017:91). In a Chinese study on oncology nurses, Yu, Jiang and Shen (2016:31) utilised the *Big Five Personality Inventory*, and the *Simplified Coping Style Questionnaire* which assesses active and passive coping styles, and the *Professional Quality of Life Scale for Nurses* which assesses burnout, compassion fatigue and compassion satisfaction. They did not report on the burnout facet *personal accomplishment* separately. They found that *neuroticism* and a passive coping style were significantly correlated with burnout, and that two subscales of *empathy* showed a significant negative relationship with burnout in oncology nurses (Yu *et al.,* 2016:31, 33). Oncology nurses are in daily contact with people who have been diagnosed with incurable disorders and often have to face the limitations of healthcare. This, along with the grief they experience when their patients pass away, may lead to a decreased feeling of *personal accomplishment* (De la Fuente-Solana *et al*., 2017:94-95).

2.6.2 Palliative care nurses

A Spanish study found that extraverted palliative care nurses reported a greater sense of *personal accomplishment* in their work, since extraverted individuals may be able to manage the demands of their environments better (Gomez-Cantorna *et al*., 2015:343, 346).

2.6.3 Public health nurses

A study by Cañadas-De la Fuente *et al*. (2015:244-245) administering the *NEO Five-Factor Inventory* and the *Maslach Burnout Inventory* to a group of public health nurses found that *agreeableness*, *conscientiousness*, *extraversion* and *openness to experience* were significantly positively correlated with *personal accomplishment*, and that *neuroticism* was negatively correlated with *personal accomplishment* (Cañadas-De la Fuente *et al.,* 2015:246). They do note that the average level of seniority in their sample was high, which might indicate more stimulating work, and contribute to a greater sense of *personal accomplishment*.

2.6.4 The personality profile of midwives

A Belgian study utilising the *Dutch Interpersonal Adjective Scale* and the *Maslach Burnout Inventory* examined the personality profiles of midwives. They were found to have primarily *submissive* and *cooperative* character traits, which were associated with an increased prevalence of *personal accomplishment* and job satisfaction. However, as Belgian midwives tend to have a greater amount of autonomy in their profession when compared to general nurses, their greater autonomy may also be a factor in their greater sense of *personal accomplishment* (Geuens *et al*., 2015b:30-31).

2.6.5 The personality profile of nurse anaesthetists

Meeusen *et al*. (2011:159-160) used the *Myers Briggs Type Indicator* and created three items measuring job satisfaction to examine the relationship between the personalities of Dutch nurse anaesthetists and job satisfaction. The respondents who considered themselves to be *easy-going* were found to experience more job satisfaction, which may indicate that *easy-going* personality types employ more

effective strategies to manage stress, and that they may interpret their work environment in a more positive manner.

2.6.6 The personality profile of intensive care nurses

The *Maslach Burnout Inventory* and the *Connor-Davidson Resilience Scale* was utilised in a study done on ICU nurses in the USA by Mealer, Jones, Newman, McFann, Rothbaum and Moss (2012:292). The *Connor-Davidson Resilience Scale* assesses *resilience*, which involves the ability to endure and overcome difficult circumstances (Merriam-Webster Dictionary, 2017). The study found that 22% of the intensive care nurses were highly *resilient* and that there was a high correlation between the *resilience* of these nurses and increased *personal accomplishment*. The ICU is a stressful work environment, and highly *resilient* nurses were less likely to allow work stress to affect the rest of their lives, thereby serving as a protective mechanism against burnout (Mealer *et al*., 2012:295-296).

2.6.7 The personality profile of nurses working in emergency departments

Kennedy (2014:6) administered the *NEO Five-Factor Inventory* to nurses working in an emergency unit in Australia. Even though Kennedy did not also administer a test to determine the job satisfaction and/or burnout of the sample, she included a demographic questionnaire which asked respondents to explain their choice of specialty and which factors influenced their decision (Kennedy, 2014:57). As these factors may allow one to deduce whether the respondents are satisfied in their nursing field, the article was considered appropriate to this study.

The study compared the personality traits of nurses working in an emergency unit with the personality traits of the general population of Australia. Nurses working in the emergency department were found to be more extraverted, in particular scoring higher in the e*xtraversion* facets *warmth*, *activity*, *excitement seeking* and *positive emotions*. Individuals who possess these character traits are described as being “bubbly”, positive, enjoy new and exciting experiences, lead fast-paced lives, and relate well to strangers. Nurses in the emergency department work under great time pressure, manage diverse and unpredictable clinical presentations, and need to communicate effectively with patients and their families during assessment of patients. Therefore,

nurses with the above personality traits would fit in well with the busy and noisy emergency department work environment (Kennedy, 2014:107-108).

Nurses working in the emergency department were also found to be more open to experiences than the population norm, in particular with regards to feelings, actions and values. Individuals with these traits enjoy a variety of experiences, are sensitive to their own emotions, are able to empathise with others, and are broad-minded. The emergency department is an area that constantly presents new challenges to staff in the variety of clinical presentations of patients, and nurses who are able to be empathic and form rapport with patients are better able to care for them. Nurses in the emergency room also provide care to a wide variety of patients, and must remain open and non-judgemental towards patients and their families in order to gain vital information regarding their conditions (Kennedy, 2014:108-109).

These emergency nurses also showed higher scores on the *agreeableness* facets of *altruism* and *modesty*, which are associated with individuals who do not like to draw attention to themselves, and who are willing to assist others. This may not be a personality trait that is unique to emergency nursing, but may be common to individuals who choose a career in nursing (Kennedy, 2014:109).

No differences were found between the nurses working in the emergency department and the general population for the domains *neuroticism* and *conscientiousness*. However, nurses working in the emergency department did score higher in the one facet of *conscientiousness*, namely *competence*, than the population norm. Individuals who are competent apply themselves fully to their work, make informed decisions, and prioritise continuing education. These are required skills especially for specialised nurses. The emergency department requires nurses who are highly knowledgeable and capable and who keep their competencies up to date (Kennedy, 2014:110-111).

2.6.8 The personality profile of nurses working in psychiatric departments

The researcher was unable to locate any studies on the personality traits of nurses working in psychiatric departments.

2.7 PERSONALITY TRAITS ASSESSED IN THIS STUDY

The following six personality traits were assessed in this study: *psychic trait anxiety*, *stress susceptibility*, *lack of assertiveness*, *impulsiveness*, *adventure-seeking*, and *detachment*. These six personality traits were chosen since previous research has been conducted examining similar traits in nurses, and this research may augment those studies.

A high level of *psychic trait anxiety* is associated with increased emotional sensitivity and worrying (Gustavsson *et al*., 2000:219-220). *Psychic trait anxiety* may be a similar personality trait to *neuroticism*, *type D personality*, and *trait-negative affect*, as individuals with high *neuroticism* scores have a tendency to respond in a negative and emotional manner to incidents (Geuens *et al.,* 2017:4630), individuals with *type D personality* have a tendency to experience negative emotions (Kim *et al*., 2017:906), and individuals with *trait-negative affect* easily experience emotional distress (Craigie *et al*., 2016:92).

Increased *stress susceptibility* refers to an individual who feels greater pressure to perform, and becomes more easily fatigued under pressure (Gustavsson *et al.,* 2000:219-220). As mentioned in section 2.6.5 it has been found that *easy-going* Dutch nurse anaesthetists experience more job satisfaction, and that nurses working in emergency departments tend to cope well under pressure (Kennedy, 2014:6).

An individual who lacks assertiveness is unable to be bold and confident when interacting with others (Gustavsson *et al.,* 2000:219-220). Midwives in a Belgian study were found to be mainly *submissive* and *cooperative,* and also had increased levels of *personal accomplishment* (Geuens *et al*., 2015b:30).

Impulsive individuals tend to act spontaneously and without consideration for the consequences of their actions (Gustavsson *et al.,* 2000:219-220). Conscientious individuals are committed to their work and prefer a greater degree of structure (Toegel & Barsoux, 2012:54). As previously mentioned in section 2.6.7, Australian emergency nurses scored higher in the *conscientiousness* facet *competence*, and that such individuals are adept at making calculated and informed decisions (Kennedy, 2014:110-111).

An individual who is *adventure-seeking* has an increased need for variety and action (Gustavsson *et al.,* 2000:219-220). Nurses working in emergency departments have been found to be more open to new experiences and challenges (Kennedy, 2014:6).

An individual with a tendency towards *detachment* is typically emotionally withdrawn and avoids forming relationships with others (Gustavsson *et al*., 2000:219-220). Critical care and intensive care nurses tend to display detached behaviour, as they tend not to make decisions based on emotions, but rather based on logic (Kennedy, 2014:42).

2.8 ASPECTS OF JOB SATISFACTION ASSESSED IN THIS STUDY

The *Measure of Job Satisfaction* (Traynor & Wade, 2011a:3-6) was used to assess nurses' satisfaction with the following aspects of their work: *personal satisfaction*, *satisfaction with workload*, *satisfaction with professional support*, *satisfaction with training*, *satisfaction with pay*, *satisfaction with prospects*, *satisfaction with standards of care,* and *overall satisfaction*.

Personal satisfaction is related to the degree to which employees experience their work as being interesting, rewarding and challenging. *Satisfaction with workload* assesses employees' perception of the volume of work, the amount of time allocated to complete the work, and the amount of staff required to complete the work. *Satisfaction with professional support* is related to the extent of managerial support, opportunities to voice concerns, feeling valued, and the presence of teamwork (Munyewende *et al*., 2014:2).

Satisfaction with training relates to the presence of in-service training or further training. *Satisfaction with pay* deals with adequacy of salaries, and *satisfaction with prospects* deals with promotion prospects and job security. *Satisfaction with standards of care* assesses whether employees are satisfied with the quality of the service provided to patients (Munyewende *et al*., 2014:3). The results of these seven aspects of job satisfaction can be combined to obtain *overall satisfaction*, which indicates the average level of job satisfaction (Traynor & Wade, 2011b:1).

2.9 WORK ENVIRONMENTS

People with particular personality traits seem to be naturally attracted to specific types of work and work environments (Eley, Eley, Bertello & Rogers-Clark, 2012:1546). As this study examines the personality traits of nurses working in emergency and psychiatric departments, it is appropriate to also examine their work environments.

2.9.1 The work environment of emergency departments

Nurses working in emergency departments face occupational stressors that are unique to their work environments, compared to other nursing specialties (Adriaenssens, 2014:2). Nurses working in emergency departments are required to be knowledgeable about a wide range of clinical presentations, diseases and conditions, and to be able to cope with rapid changes in pace and intensity of work (Crouch, Charters, Dawood & Bennett, 2016:2). They have high workloads, and up to a third of their patients can require very urgent or immediate care (Hodkinson & Wallis, 2009:635). They are also repeatedly exposed to traumatic events such as severe injuries, suffering, suicide and death (Adriaenssens, De Gucht & Maes, 2015:649), and are even at high risk of being attacked themselves by aggressive and violent patients who may be under the influence of drugs or alcohol (Adriaenssens, 2014:2).

In South Africa, the presentation of patients at emergency departments is complicated by the fact that South Africa has a disease profile of both developing and developed countries, which has resulted in it facing a quadruple burden of disease. The four disease categories prevalent in South Africa are: non-communicable diseases such as cardiovascular diseases and cancer; the HIV/AIDS epidemic; conditions related to poverty such as communicable diseases and nutritional deficiencies; and injuries, with the majority of injuries in South Africa being due to homicide and traffic accidents (Pillay-van Wyk, Msemburi, Laubscher, Dorrington, Groenewald, Glass *et al*., 2016:e642-e643).

Emergency departments are at the front line of hospital services, and need to be able to manage acute clinical presentations of all these diverse healthcare needs (Adriaenssens, 2014:2). Additionally, overcrowding and boarding in emergency departments due to delayed admission to wards and ICUs is a growing international and local problem (Reznek, Upatising, Kennedy, Durham, Forster & Michael, 2018:437; Ahiable, Lahri & Bruijns, 2017:71; Rose, Scales, Atzema, Burns, Gray,

Doing *et al*., 2016:1329; Hung, Kung, Hung, Liu, Liu, Chew *et al*., 2014:485). Emergency department staff is required to deal with boarding patients until they are admitted, but are often not able to provide the specialised care that such patients require, and the extra workload reduces the overall quality of care (Hung *et al*., 2014:485).

A Canadian study found that more than 50% of ICU admissions spent more than six hours in the emergency department, and that 11% of ICU admissions spent more than 24 hours in the emergency department (Rose *et al*., 2016:1328). During the four-week period of a study conducted at a South African hospital, the average bed occupancy rate of the emergency department was 130%, and that the bed occupancy rate never dropped below 100% (Ahiable *et al.*, 2017:71).

2.9.2 The work environment of psychiatric departments

Nurses working in psychiatric departments use their perception, thoughts, and feelings to identify and manage patient needs. They build caring and compassionate therapeutic relationships with patients (Redknap, Twigg, Rock & Towell, 2015:262) and provide patients with emotional support (Gunasekara, Pentland, Rodgers & Patterson, 2014:101). Over half of the psychiatric admissions in a South African study were found to be readmissions (Thomas, Cloete, Kidd & Lategan, 2015:8), so nurses working in psychiatric departments may see the same patients repeatedly.

Psychiatric nursing requires well developed networking, problem-solving and decision-making skills, and the ability to respond rapidly to a variety of demands. Nurses working in psychiatric departments monitor clients' psychopathology, consult and liaise with other members of the healthcare team, provide support to family members, and manage bed availability. Clinical documentation, as well as emergency or police documentation, may also need to be completed (Heslop, Wynaden, Tohotoa & Heslop, 2016:430).

Nurses working in psychiatric departments balance the need for rules in the psychiatric department with patients' rights to individual freedoms. They engage and empower patients through spontaneously occurring opportunities, most commonly those related to patients' everyday needs (Delaney & Johnson, 2014:134). When evaluating patients, nurses working in psychiatric departments evaluate the level of risk that the

patient may pose to themselves and to others, and inform the attending physician (Sehiralti & Er, 2013:48).

Due to the nature of disorders requiring psychiatric nursing care, nurses working in psychiatric departments are sometimes required to implement compulsory hospitalisation and treatment, apply restraints or isolate patients. Such measures may lead to complex ethical dilemmas when taking into account patients' right to self-determination (Eren, 2014:369).

Nurses working in psychiatric departments in South Africa are more likely to see patients with certain diagnoses. The large-scale South African Stress and Health Study found that nearly a third of South Africans have suffered from a psychiatric disorder: 15.8% from an anxiety disorder, 9.8% from a mood disorder, and 13.3% from a substance use disorder. The most common specific disorders in South Africa were alcohol abuse (11.4%), major depressive disorder (9.8%) and agoraphobia without panic (9.8%) (Herman, Stein, Seedat, Heeringa, Moomal & Williams, 2009:340).

In 2011, the World Health Organisation (2011:4, 15) indicated that South Africans have one of the highest levels of alcohol consumption in Africa, and one of the riskiest patterns of drinking in the world. A quarter (25.6%) of South Africans who consume alcohol partook in at least one episode of heavy drinking in the 30 days prior to a 2014 survey by the World Health Organisation (2014:1). A study conducted at a Western Cape provincial hospital in South Africa found that 38% of their psychiatric admissions presented with substance use disorders, with methamphetamine (70%), alcohol (14%) and cannabis (11%) being the most frequently used substances (Thomas *et al.,* 2015:8, 9).

Major depressive disorder is characterised by recurring episodes of sad, empty or irritable moods lasting for at least two weeks at a time (American Psychiatric Association, 2013:n.p.). A study conducted in the Western Cape found that major depressive disorder was the most common diagnosis (58%) of individuals presenting with mood disorders (Thomas *et al.,* 2015:9). A national study undertaken in South Africa indicated that 45.4% of individuals with major depressive disorder experienced moderate symptoms and 34.3% experienced severe symptoms (Herman *et al.*, 2009:341). Another South African study found that individuals who had witnessed a traumatic event were 50% more likely to develop an anxiety or mood disorder (Atwoli,

Platt, Williams, Stein & Koenen, 2015:1240). According to Statistics South Africa, over half of South African households were victims of a housebreaking or burglary in 2016/17, 1.1% of households have been victims of murder, and one in five hundred individuals reported being victim to a sexual offence (Statistics South Africa, 2017:63-64).

Agoraphobia is an anxiety disorder presenting with extreme fear. The fear results from a real or anticipated exposure to certain situations from which individuals believe they may not be able to escape or that nobody will help them (American Psychiatric Association, 2013:n.p.). Herman *et al.* (2009:342) reported that, of South Africans who presented with agoraphobia without panic, 28.3% experienced moderate symptoms and 27.7% experienced severe symptoms.

2.10 CONCLUSION

This chapter provided an overview of nursing shortages, nurse turnover rates and their effects. The personality traits of general nurses and nurses working in specific nursing fields were reviewed, and the relationships between their personality traits and job satisfaction were summarised. The settings and work requirements of nurses working in emergency and psychiatric departments were also described. Chapter 3 discusses the research methodology employed in this study.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter provides a detailed discussion of the study setting, research design, population, and sampling methods used in this study. It also describes the instrumentation and pilot study in more depth and delineates the data collection and data analysis strategies that were followed.

3.2 RESEARCH OBJECTIVES

The research objectives were to assess selected personality traits and levels of job satisfaction of nurses working in emergency and psychiatric departments, and to determine which personality traits were related to higher levels of job satisfaction for each group of nurses.

3.3 STUDY SETTING

The study setting comprised public and private hospitals in the Northern and Southern suburbs of Cape Town which provide either emergency or psychiatric services, or both. Twenty hospitals were identified. Purposive and stratified sampling was used in order to ensure representativeness among the hospitals in the sampling frame. Preference was given to hospitals that provide both emergency and psychiatric services in order to ensure efficient use of the researcher's time. The two variables used for stratification were hospital sector (public or private) and private hospital group, of which the three large private hospital groups in South Africa were included in order to decrease the influence of external variables such as satisfaction with facilities and salaries. In order to ensure anonymity, hospitals were given codes after the sampling frame had been chosen. Private hospitals were coded as Groups A-C, and one hospital from each group was included in the sampling frame. The emergency departments that participated in the study were coded as Emergency Department, Hospital 1 to 7 and the psychiatric departments as Psychiatric Department, Hospital 1 to 7.

A private hospital from Group A was one of the four hospitals which have both an emergency and psychiatric department, and its psychiatric department did not provide ethics approval in time for it to participate in this study. Therefore, in order to select the hospital at which the pilot study would take place, the names of the remaining three hospitals with an emergency and psychiatric department, which were all public hospitals, were written on three different slips of paper. The slips of paper were folded so that it was not possible to see the writing on them, and they were placed in a container. The researcher randomly selected one slip of paper from the container, and the hospital which was written on the slip of paper was used for the pilot study. It was coded Hospital 1 and was removed from the sampling frame of the main study. Therefore, the target population of the main study consisted of 19 medical facilities. The two remaining public hospitals which had both an emergency and psychiatric department were included in the main sampling frame and coded Hospital 2 and Hospital 3.

The private hospital from private hospital Group A that provides both emergency and psychiatric services was included in the sampling frame as Hospital 6. Its emergency department gave ethics approval before the study was conducted and it participated in this study, but its psychiatric department did not, so its psychiatric department was removed from the final sampling frame.

One hospital from private hospital Group B was randomly selected by paper lots for inclusion in the study and it was coded Hospital 7. It provides only emergency services. One hospital from private hospital Group C was also randomly selected and it was coded Hospital 8. It provides only emergency services.

Among the remaining public hospital target population, one hospital which contained only an emergency department was randomly selected and included in the sampling frame. It was coded as Hospital 4. The last public hospital to be randomly selected was a public psychiatric hospital. It was coded Hospital 5. Due to the limited number of psychiatric departments in the private hospital groups, more psychiatric departments from the public facility were included to ensure a sufficient sample size. Three psychiatric wards in the public psychiatric hospital were randomly selected for inclusion in the study by paper lots.

After the selection process was completed, seven hospitals were included in the sampling frame, and included six emergency departments and three psychiatric departments. Four of the hospitals were from the public sector, and three were from the private sector.

The target population and sampling frame of the main study are provided in Table 3.1.

Table 3.1: Population and sampling frame of main study

Public Facilities			
Hospital Code	**Emergency Services**	**Psychiatric Services**	**Included in Sampling Frame**
Hospital 2	√	√	√
Hospital 3	√	√	√
Hospital 4	√		√
Hospital 5		√	√
Hospital 9		√	
Hospital 10		√	
Private Facilities			
Hospital Code	**Emergency Services**	**Psychiatric Services**	**Included in Sampling Frame**
Hospital 6 from Group A	√	√[2]	√
Hospital 7 from Group B	√		√
Hospital 8 from Group C	√		√
Hospital 11 from Group A	√		
Hospital 12 from Group B	√		
Hospital 13 from Group B	√		
Hospital 14 from Group B	√		
Hospital 15 from Group B	√		
Hospital 16 from Group C		√	
Hospital 17 from Group A		√	
Hospital 18 from Group A		√	
Hospital 19 from Group A		√	
Hospital 20 from Group C		√	

3.4 RESEARCH DESIGN

This study used a quantitative, non-experimental, cross-sectional, descriptive correlational research design. Quantitative research is an objective and systematic process which allows the researcher to gather numerical information regarding

[2] Was initially included in the sampling frame, but did not provide ethics approval before the study was submitted, so was removed from the final sampling frame.

relationships between variables (Burns & Grove, 2015:32). In this study, numerical information regarding the strength of personality traits and levels of job satisfaction was assessed. A non-experimental research design is used when the independent variable occurs naturally, and it is not possible or ethical for the researcher to manipulate it (LoBiondo-Wood & Haber, 2018:181). In this study the independent variables were the personality traits of the nurses taking part in the study. Cross-sectional studies gather data on one occasion, and allow for more efficient use of the researcher's time and resources (LoBiondo-Wood & Haber, 2018:185). Descriptive correlational studies can indicate whether the relationship between the variables is positive or negative (LoBiondo-Wood & Haber, 2018:184), and can therefore show the extent to which particular personality traits are related to job satisfaction in the selected nursing fields.

3.5 POPULATION AND SAMPLING

The target population of this study are all categories of nurses who are employed in emergency departments and psychiatric departments in public and private hospitals in the Northern and Southern suburbs of Cape Town. The total sample size was calculated with a one correlation power analysis. The researcher was unable to find any previous correlation studies using the *Swedish universities Scales of Personality* or the *Measure of Job Satisfaction* which could have guided the calculation of the sample size. The researcher was also unable to obtain the total number of nurses included in the target population.

A two-sided hypothesis test based on 90% power with a significance level of 0.05 was chosen, and it was calculated that a sample size of 37 would be required. Since the study assessed the personality traits of nurses working in emergency and psychiatric departments separately, a sample size of 37 would be required for each specialty. A p-value of 0.05 would indicate statistical significance. Clinical significance was calculated based on the sample size of 37, and correlations having an absolute value $r > 0.5$ (a moderate correlation) would be considered clinically significant (Hinkle, Wiersma & Jurs, 2003:109).

3.5.1 Inclusion criteria

Subjects who were included in this study are:

- Registered Nurses, Enrolled Nurses and Enrolled Nursing Assistants who have been employed in either emergency departments or psychiatric departments for at least six months
- Day and night staff
- Nurses with or without advanced training in emergency or psychiatric nursing

3.5.2 Exclusion criteria

Subjects who met the inclusion criteria, but were not included in this study are:

- Nurses who were absent at the time of data collection
- Nurses who were on leave at the time of data collection
- Nurses who did not wish to participate

3.6 INSTRUMENTATION

The data collection tool consisted of a demographic questionnaire (Appendix 7), the *Swedish universities Scales of Personality* (Appendix 8) and the *Measure of Job Satisfaction* (Appendix 10). The researcher combined the three questionnaires into one document in order to eliminate confusion among respondents who may not read the instructions carefully and may mistakenly not answer all the questionnaires.

The *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction* only contain questions about general situations, and do not contain any references or examples that are culturally specific. In order to verify that the questions were culturally appropriate to the current target population, during the pilot study the researcher asked respondents whether any of the questions were not relevant to their cultures or whether any of the questions made them feel uncomfortable. The respondents indicated that all the questions were culturally appropriate and that none of the questions made them feel uncomfortable. During the pilot study the content and translations of the questionnaires were also assessed by cognitive questioning of respondents. Respondents were asked to paraphrase some questions, to give synonyms for some words, and to give an example of the situation that some questions were asking about. Respondents were also asked whether there were any questions that they did not understand, and whether any of the questions could be asked in a clearer manner.

3.6.1 Demographic questionnaire

A demographic questionnaire was designed for this study in order to collect the biographical data of respondents. The following variables were included: gender, age, employer (public or private), field of employment (emergency or psychiatric department), category of nurse (Registered Nurse, Enrolled Nurse or Enrolled Nursing Assistant), amount of time working in specialty, and whether the nurse chose to work in their current specialty or not. These variables were selected as they may influence nurses' decisions to remain in their jobs, as is discussed below, and should be examined for confounding effects in the final results.

The first variable collected from respondents was their gender. Due to systematic differences between the personality traits of males and females, personality test scores are weighted to normalise such differences (Allik, Church, Ortiz, Rossier, Hřebíčková, De Fruyt *et al*., 2017:408). The algorithms obtained from one of the authors of the *Swedish universities Scales of Personality* also incorporate such weighting (Edman, 2017:n.p.), therefore it was important to know the gender of each respondent to calculate the average scores of each of their personality traits.

The next variable collected was age. A study conducted on nurse anaesthetists found that older nurse anaesthetists had lower turnover rates compared to younger nurses. The researcher speculated that older nurses may have a greater need for job security and are hence more resistant to change (Meeusen *et al*., 2011:161), which may cause them to remain in a job they do not enjoy.

Respondents were also asked to indicate whether they were employed in the public or private sector. A study found that a significantly larger percentage of nurses employed in public hospitals in South Africa are dissatisfied with all aspects of their jobs, compared to nurses employed in the private sector (Coetzee *et al*., 2013:162). As the sector in which respondents are employed may influence their job satisfaction, respondents were asked to indicate in which sector they are employed.

As this study separately assesses the personality traits of nurses working in either emergency or psychiatric departments, respondents were required to indicate whether they were employed in an emergency or psychiatric department. Respondents were also asked to indicate their nursing category, as the results of the *Measure of Job Satisfaction* are sensitive to different categories of staff (Traynor & Wade, 2011b:1).

As newly hired nurses have been found to have higher turnover rates than nurses who have been employed for a long time (NSI Nursing Solutions, Inc., 2016:12), as discussed in section 2.2.2, respondents were asked to indicate the length of time that they have been employed in their current specialty.

Respondents were also asked to indicate whether they had chosen to work in their current specialty or not. As previously mentioned, a study has found that one of the most important reasons individuals give for entering the nursing profession was a desire to care for others (Crick *et al.*, 2014:12). Since individuals may have a tendency to choose fields of work based on their personality traits, a respondent's choice to work in their current specialty may be compared to their job satisfaction.

Respondents were provided with the questionnaires in Afrikaans, English and isiXhosa, and completed the questionnaires in the language of their choice. The language of the questionnaires was also added as a study variable to determine whether the translations were adequate, or whether errors in translation affected responses to certain questions. No validity or reliability data are available for this demographic questionnaire.

As the final datasets of the emergency and psychiatry groups were small, it was not possible to analyse the data according to each demographic variable. Regression analysis was not conducted as it was not the objective of this study to predict job satisfaction.

3.6.2 The *Swedish universities Scales of Personality*

The instrument that was used to assess personality traits in this study was the *Swedish universities Scales of Personality*. *The Swedish universities Scales of Personality* is a revised version of the *Karolinska Scales of Personality*, which was developed to assess the personality traits of both mentally healthy and unhealthy individuals (Gustavsson *et al.*, 2000:217). The *Swedish universities Scales of Personality* does not assess the entire personality, but rather focuses only on selected personality traits.

The complete *Swedish universities Scales of Personality* (Gustavsson *et al*., 2000) can assess up to 13 personality traits of individuals, but has been designed to allow researchers to extract single scales according to their requirements, decreasing the length of the questionnaire, and reducing participant exhaustion (Ortet, Ibáñez,

Llerena & Torrubia, 2002:139). Answering questionnaires may also be considered tedious and time-consuming, leading to attrition (Biering, Hjollund & Frydenberg, 2015:91), so a shortened questionnaire may encourage more nurses to participate. The *Swedish universities Scales of Personality* does not require the administrator to have a qualification in psychology, as many personality tests do, and is freely available from the authors.

One of the most widely accepted models of personality is the *Five-Factor Model* (Farnadi, Sitaraman, Sushmita, Celli, Kosinski, Stillwell *et al*., 2016:110), and the *Swedish universities Scales of Personality* has been verified against the respected Five-Factor based personality test, namely the *Revised NEO-PI-R Personality Inventory*, as discussed in section 3.8.1.

3.6.2.1 Personality assessment across different cultures

Numerous studies have indicated that the five personality dimensions in the *Five-Factor Model* represent the major dimensions of personality in all cultures across the world (John, Naumann & Soto, 2008:121). A large-scale study using the *Revised NEO Personality Inventory* across 50 cultures concluded that features of personality traits are universal to all cultures across the six inhabited continents (McCrae & Terracciano, 2005:547).

The five-factor personality traits of individuals from nine French-speaking African countries were compared to the personality traits of individuals from Switzerland, and it was found that the personality traits were replicable in the African samples, and that the personality structures of the African samples were similar to the Western sample (Zecca, Verardi, Antonietti, Dahourou, Adjahouisso, Ah-Kion *et al*., 2013:684, 696). Two independent measures of the Five-Factor Model, namely the *Revised NEO-PI-R* and the BTI (Basic Trait Inventory), were administered to seven cultural regions from Africa, including South Africa, and the five-dimensional personality structure was found to be highly replicable across all regions (Schmitt, Allik, McCrae & Benet-Martínez, 2007:181, 201). Two studies conducted in South Africa, which included respondents from the four major racial groups – Black, Coloured, Indian and White – found that the five-factor structure is clearly replicated across all the groups (Church, 2017:154; Pillay & Laher, 2014:78). Based on the results of these studies, the *Swedish universities*

Scales of Personality was considered appropriate to the target population of the current study.

3.6.2.2 Personality traits assessed in this study

The *Swedish universities Scales of Personality* was used to assess the *psychic trait anxiety*, *stress susceptibility*, *lack of assertiveness*, *impulsiveness*, *adventure-seeking*, and *detachment* of respondents. The questionnaire contained seven statements for each of the six personality traits, with a total of 42 statements. Respondents indicated the extent to which they agreed with a statement on the questionnaire on a 4-point Likert scale, by choosing between “Does not apply at all”, “Does not apply very well”, “Applies pretty much” or “Applies completely”. Each scale was scored separately, and scales with higher scores indicate a greater inclination towards a specific trait, while lower scores indicate a lesser inclination towards that trait.

3.6.3 The *Measure of Job Satisfaction*

The researcher conducted a literature review to identify a relevant instrument to assess the job satisfaction of respondents. The most recent systematic review comparing different job satisfaction instruments for nurses compared 12 instruments. The *Measure of Job Satisfaction* was the only instrument found to be relevant to this study and highly reliable, with all subscales being above 0.80, and an overall Cronbach’s α coefficient of 0.93 (Caers, Du Bois, Jegers, De Gieter, De Cooman & Pepermans, 2008:521). The only other relevant systematic review that the researcher was able to find compared seven instruments to examine job satisfaction in a hospital environment. The *Measure of Job Satisfaction* was the only instrument found to have adequate reliability and validity, with its test-retest reliability over a period of two weeks being 0.89, its internal consistency being 0.93, and its convergent validity when compared to a Price Waterhouse work characteristics instrument being 0.83 (Van Saane, Sluiter, Verbeek & Frings-Dresen, 2003:191, 195, 197).

The results of these systematic reviews prompted the researcher to examine the article discussing the creation of the *Measure of Job Satisfaction* (Traynor & Wade, 1993:132), and more recent research which also utilised the *Measure of Job Satisfaction*, where high instrument reliability and validity was also found (Iwu, 2016:10; Munyewende, Rispel & Chirwa, 2014:3).

3.6.3.1 Job satisfaction assessment across different cultures

The *Measure of Job Satisfaction* has previously been used in various studies among African populations, including South Africa. A Nigerian study administered the *Measure of Job Satisfaction* to nurses, and the instrument was found to be culturally appropriate (Iwu, 2016:10). A South African study examining the job satisfaction of nursing managers working in primary healthcare clinics in Gauteng and Free State utilised the *Measure of Job Satisfaction*, and found it to be relevant to the South African setting, with good face validity according to a 22 member expert panel of academics, nursing managers, national nursing association representatives and policy experts (Munyewende, 2016:77, 128). Another South African study conducted at three hospitals and six clinics in each of three health districts also produced valid results using the *Measure of Job Satisfaction* (Uys, Minnaar, Simpson & Reid, 2005:282, 286).

3.6.3.2 Job Satisfaction subscales assessed in this study

The *Measure of Job Satisfaction* was used to assess respondents' satisfaction with the following aspects of their work: *personal satisfaction*, *satisfaction with workload*, *satisfaction with professional support*, *satisfaction with training*, *satisfaction with pay*, *satisfaction with prospects*, and *satisfaction with standards of care*.

The *Measure of Job Satisfaction* consists of 44 items on a 5-point Likert scale. Respondents rate how satisfied they are with the listed aspects of their work by choosing between "Very dissatisfied", "Dissatisfied", "Neither satisfied nor dissatisfied", "Satisfied" or "Very satisfied". For each subscale the scores were summed and divided by the number of questions in the subscale. A higher score indicated a higher level of job satisfaction, and a lower score indicated a lower level of job satisfaction.

The last question on the *Measure of Job Satisfaction*, "Overall, how satisfied are you with your job?" can be used to indicate the relative importance of the different job satisfaction subscales to the respondent's perceived *overall satisfaction* (Traynor & Wade, 2011b:1). Since such analysis was beyond the scope of this study, it was decided not to analyse it separately, but to include it in the *overall satisfaction* calculation.

The scoring key for the *Measure of Job Satisfaction* (Traynor & Wade, 2011b:1) states that it takes approximately ten minutes to complete the questionnaire. Since the *Swedish universities Scales of Personality* contains approximately the same number of questions and has a similar format to the *Measure of Job Satisfaction*, it should also take approximately ten minutes to complete.

3.6.3.3 Translation of questionnaires

According to the most recent census by Statistics South Africa (2011), the major languages spoken in the City of Cape Town are Afrikaans (34.9%), English (27.8%) and isiXhosa (29.2%), which comprises 91.9% of the population of Cape Town. Other languages are each spoken by 1% or less of the population. The *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction* are available in English, and were also translated into Afrikaans and isiXhosa for the purposes of this study. The translation process entailed two collaborators independently translating the documents, which were then back-translated into English. Differences between the original English version and the translations were discussed and the most appropriate translation determined by mutual agreement.

The effectiveness of the translations were further determined during the pilot study. The questionnaires were provided to respondents in Afrikaans, English and isiXhosa, and respondents completed them in the language of their choice. Two Afrikaans, 20 English and 3 isiXhosa speakers were included in the pilot study and they were asked how well they had understood the survey instructions, the underlying concepts of the questions, the questions themselves, and the terminology that had been used. The English speakers indicated the English questionnaires were easy to understand, and the Afrikaans speakers who answered Afrikaans questionnaires indicated that the translation was clear. The isiXhosa speakers indicated that although the isiXhosa translation of the questionnaires was adequate and correct, they explained that, in general, written isiXhosa is difficult to understand, and isiXhosa speakers often prefer to read documents in English. This statement was further verified during the main study by other isiXhosa speakers, and many of them took an English questionnaire, even though the isiXhosa one was also made available to them. No changes were made to the instrument in any of the languages after the pilot study.

3.7 PILOT STUDY

The pilot study was undertaken at the emergency and psychiatric departments of the same public hospital. It was conducted from 18-20 March 2018 at the department coded as Psychiatric Department, Hospital 1, and from 26-28 March 2018 at the department coded as Emergency Department, Hospital 1. The conditions of the pilot study resembled those of the main study as far as possible, and followed the same data collection schedule.

The total number of nurses working in the emergency department of the hospital that took part in the pilot study were 49, and total number of nurses working in the psychiatric department were also 49. The pilot study resulted in 11 completed questionnaires received from nurses working in the emergency department, and they were all completed in English. Fourteen questionnaires were completed by nurses working in the psychiatric department, of which two were completed in Afrikaans, nine in English, and three in isiXhosa.

In both groups, the majority of respondents were female, Registered Nurses, and completed the questionnaires in English. The emergency group contained nurses who were slightly younger, with the majority being between 25 and 34, as opposed to the majority of respondents from the psychiatry group being between 35 and 44. There was an even distribution of work experience across both groups, but with no nurses in either group having between 11 and 19 years' experience. The response rate of the pilot study was 22.4% for the emergency group and 28.6% for the psychiatry group. Nearly all respondents working in the emergency department had chosen to work there, as opposed to only about half of respondents in the psychiatric department. Preliminary statistical analyses were conducted on the results of the pilot study and are discussed in section 4.3.

3.8 RELIABILITY AND VALIDITY

3.8.1 Previous studies

The internal consistency of the *Swedish universities Scales of Personality* was calculated by Gustavsson *et al*. (2000:220), using Cronbach's α coefficient values and mean inter-item correlations. Cronbach's α coefficient scores above 0.70 are considered to indicate sufficient internal consistency of instruments (LoBiondo-Wood

& Haber, 2018:273), and the *Swedish universities Scales of Personality*'s Cronbach's α coefficients found by Gustavsson *et al*. ranged from 0.73 to 0.84. Only one scale, social desirability, scored below 0.70, with a score of 0.59. The social desirability scale was not used in this study. Mean inter-item correlations do not take scale length into account, and scores above 0.20 are considered satisfactory (Gustavsson *et al*., 2000:222-223). The *Swedish universities Scales of Personality*'s mean inter-item correlations ranged from 0.17 to 0.43, with social desirability being the only scale to score below 0.20.

Aluoja *et al.* (2009:234) confirmed the concurrent validity of the *Swedish universities Scales of Personality* by administering the test along with the well-established *Revised NEO-PI-R* personality test. The *NEO-PI-R* domain *neuroticism* showed strong positive correlations with the *Swedish universities Scales of Personality*'s *somatic trait anxiety* (r = 0.61), *psychic trait anxiety* (r = 0.76) and *stress susceptibility* (r = 0.67). The *NEO-PI-R* domain e*xtraversion* showed a weak negative correlation with the *Swedish universities Scales of Personality*'s *lack of assertiveness* (r = -0.45), a moderate positive correlation with *adventure-seeking* (r = 0.53), and a moderate negative correlation to *detachment* (r = -0.67), which are all considered to be aspects of e*xtraversion (*Aluoja *et al.,* 2009:233-234).

The reliability of the *Measure of Job Satisfaction* was assessed in two ways. The Cronbach's α coefficients of the scales were determined for a main sample of nurses from different specialties in the United Kingdom, and ranged between 0.84 and 0.93, indicating high internal consistency. The test-retest reliability was also assessed in a smaller sample of nursing students in the United Kingdom. The test was administered to them on two occasions over a period of two weeks. The two scores were correlated and found to be nearly identical, suggesting high reliability (Traynor & Wade, 1993:129-130). A literature review by Caers *et al.* (2008:521) also confirmed the high reliability of the *Measure of Job Satisfaction*, with the average Cronbach's α coefficients of the instrument being 0.93, and all five subscales being above 0.80.

The concurrent validity of the *Measure of Job Satisfaction* was determined using another sample of nurses, who completed the questionnaire as well as the instrument that Price Waterhouse used to assess nurse retention and recruitment. A high correlation of 0.83 was obtained using Pearson's correlation coefficient, after adjusting for differences in aspects measured (Traynor & Wade, 1993:132).

3.8.2 Pilot study

After the data were collected from the pilot study, the Cronbach's α coefficients of both the *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction* were calculated in order to determine their internal consistency. As the nurses employed in emergency and psychiatric departments are considered to be two separate groups in this study, their Cronbach's α coefficients were calculated separately, as well as being calculated together, for comparison.

In the *Swedish universities Scales of Personality*, questions 8, 20 and 32 of the *stress susceptibility* subscale; question 15 of the *lack of assertiveness* subscale; and questions 6 and 42 of the *detachment* subscale were negatively worded. These scores were reversed when calculating the Cronbach's α coefficient values. The Cronbach's α coefficients of the *Swedish universities Scales of Personality* as found during the pilot study are summarised in Table 3.2.

Table 3.2: Cronbach's α coefficient values of the *Swedish universities Scales of Personality* (pilot study)

Personality Traits	Emergency Group (n_E = 11)	Psychiatry Group (n_P = 14)	Emergency and Psychiatry Groups (n = 25)
Psychic Trait Anxiety	0.66	0.86	0.79
Stress Susceptibility	0.06	-0.05	-0.04
Lack of Assertiveness	0.09	0.48	0.35
Impulsiveness	0.37	0.72	0.62
Adventure-seeking	0.77	0.73	0.74
Detachment	0.55	0.69	0.66
Overall	0.61	0.91	0.86

The psychiatry group showed mostly acceptable Cronbach's α coefficient values, with all scales being near or above 0.70, except for the *stress susceptibility* scale, which had a value of -0.05 and the *lack of assertiveness* subscale, which had a value of 0.48. The *Overall* Cronbach's α coefficient value of the *Swedish universities Scales of Personality* for the psychiatry group was 0.91. For the emergency group, only the *adventure-seeking* scale showed a Cronbach's α coefficient value above 0.70, with the remaining scales ranging between 0.06 and 0.55. The *Overall* Cronbach's α coefficient for the emergency group was 0.61.

Inter-item statistics were examined, and it was determined that there was not a single item that significantly decreased the Cronbach's α coefficients of both the emergency and psychiatry group. Statistical consultation indicated that the low and negative Cronbach's α coefficients may have been due to small sample sizes, or due to time pressure on nurses to return to duty after their breaks, which may have resulted in there being less time available for them to think carefully about questions. Therefore, it was decided not to alter or remove any of the questions for the main study.

The Cronbach's α coefficient values of the *Measure of Job Satisfaction* for the pilot study are summarised in Table 3.3.

Table 3.3: Cronbach's α coefficient values of the *Measure of Job Satisfaction* (pilot study)

Job Satisfaction Subscales	Emergency Group (n_E = 11)	Psychiatry Group (n_P = 14)	Emergency and Psychiatry Groups (n = 25)
Personal Satisfaction	0.85	0.51	0.66
Satisfaction with Workload	0.81	0.74	0.80
Satisfaction with Professional Support	0.87	0.68	0.81
Satisfaction with Training	0.77	0.67	0.72
Satisfaction with Pay	0.84	0.89	0.87
Satisfaction with Prospects	0.48	0.46	0.45
Satisfaction with Standards of Care	0.95	0.74	0.90
Overall Satisfaction	0.96	0.91	0.94

The *Measure of Job Satisfaction* did not contain any negative questions, and all Cronbach's α coefficients were within acceptable ranges, except for the *satisfaction with prospects* subscale, which had values of 0.48 for the emergency group and 0.48 for the psychiatry group. The Cronbach's α coefficient values for *overall satisfaction* for the emergency group was 0.96 and for the psychiatry group 0.91. According to statistical analysis of the individual questions, none of the questions required modification. Further analysis indicated that the data of the pilot study were not normally distributed, so Spearman's rank correlation coefficient (ρ) was used to calculate preliminary correlations, as discussed in section 4.3.

3.8.3 Main study

After the data had been collected for the main study, the Cronbach's α coefficients of both the *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction* were calculated again. The Cronbach's α coefficients of the *Swedish universities Scales of Personality* as found during the main study are summarised in Table 3.4.

Table 3.4: Cronbach's α coefficient values of the *Swedish universities Scales of Personality* (main study)

Personality Traits	Emergency Group (n_E = 11)	Psychiatry Group (n_P = 14)	Emergency and Psychiatry Groups (n = 25)
Psychic Trait Anxiety	0.65	0.62	0.65
Stress Susceptibility	0.77	0.48	0.66
Lack of Assertiveness	0.60	0.50	0.57
Impulsiveness	0.58	0.68	0.63
Adventure-seeking	0.61	0.60	0.60
Detachment	0.60	0.24	0.47
Overall	0.80	0.79	0.80

The Cronbach's α coefficients of the *Swedish universities Scales of Personality* were found to be much improved with the larger sample size of the main study. While most of the scales were now above 0.6, only the *stress susceptibility* scale of the emergency nurse group was above 0.7. *Impulsiveness* (α = 0.58) of the emergency group, and *stress susceptibility* (α = 0.48), *lack of assertiveness* (α = 0.50), and *detachment* (α = 0.24) of the psychiatry groups produced low scores. The results of these scales should be interpreted with caution. The Cronbach's α coefficient values of the *Measure of Job Satisfaction* for the main study are summarised in Table 3.5.

Table 3.5: Cronbach's α coefficient values of the *Measure of Job Satisfaction* (main study)

Job Satisfaction Subscales	Emergency Group (n_E = 11)	Psychiatry Group (n_P = 14)	Emergency and Psychiatry Groups (n = 25)
Personal Satisfaction	0.92	0.86	0.89
Satisfaction with Workload	0.92	0.78	0.87
Satisfaction with Professional Support	0.92	0.88	0.90
Satisfaction with Training	0.89	0.60	0.79
Satisfaction with Pay	0.95	0.92	0.94
Satisfaction with Prospects	0.80	0.68	0.75
Satisfaction with Standards of Care	0.92	0.82	0.87
Overall Satisfaction	0.98	0.94	0.96

All the Cronbach's α coefficient values of the *Measure of Job Satisfaction* were above 0.70, with the exception of the *satisfaction with training* (α = 0.60) and *satisfaction with prospects* (α = 0.68) subscales for the psychiatry group.

3.9 DATA COLLECTION

The researcher introduced the study to nursing staff after the morning or evening shift handovers, and verbal instructions on how to complete the questionnaires was given. The instructions were also written on the questionnaires themselves. Opaque envelopes and a sealed box with a slit for the completed questionnaires was left at either the nursing station or nurses' tea room of each department, in order to ensure anonymity and privacy of the returned questionnaires. Nurse respondents were not given a time limit within which to complete the questionnaires, but they were informed that the questionnaire should take approximately 20 minutes to complete. A snack was also provided to nurses who took a questionnaire. The researcher returned to the hospitals at the end of the week to collect the boxes. The researcher issued and collected the questionnaires as per the schedule outlined in Table 3.6.

Table 3.6: Data collection schedule

Dates and Hospitals	First Shift	Second Shift
4-5 May 2018 Emergency Department, Hospital 4	07:30 - 08:30: Day shift Issue questionnaires 19:30 - 20:30: Night shift Issue questionnaires After one week: Collect questionnaires	07:30 - 08:30: Day shift Issue questionnaires 19:30 - 20:30: Night shift Issue questionnaires After one week: Collect questionnaires
7-8 May 2018 Emergency Department, Hospital 7	Follow schedule of first week	Follow schedule of first week
17-18 May 2018 Emergency Department, Hospital 2 Emergency Department, Hospital 3	Follow schedule of first week	Follow schedule of first week
21-22 May 2018 Psychiatric Department, Hospital 2 Psychiatric Department, Hospital 3	Follow schedule of first week	Follow schedule of first week
28, 30 May 2018 Psychiatric Department, Hospital 5	Follow schedule of first week	Follow schedule of first week
2-3 July 2018 Emergency Department, Hospital 6 Psychiatric Department, Hospital 6	Follow schedule of first week	Follow schedule of first week
8-9 July 2018 Emergency Department, Hospital 8	Follow schedule of first week	Follow schedule of first week

As indicated in Tables 3.7-3.8, 42 questionnaires were issued to nurses working in emergency departments, of which 40 were completed and two were incomplete or erroneous. Fifty questionnaires were issued to nurses working in psychiatric departments, of which 41 were completed and nine were incomplete or erroneous. The final sample sizes for both emergency and psychiatric departments were more than the required sample size of 37. The response rate of nurses working in emergency departments was 18.1%, and of nurses working in psychiatric departments was 34.2%. The lower response rate from emergency departments may reflect their busier working environments, as they may have been too tired during their breaks or at home to complete the questionnaires. The researcher visited the hospitals

intermittently in the week after issuing the questionnaires in order to encourage more nurses to complete the questionnaires.

Table 3.7: Questionnaires issued to emergency departments

	Number of questionnaires received	% of questionnaires received	Incomplete / erroneous questionnaires	% incomplete / erroneous questionnaires	Total number of nurses in department
Hospital 2	6	24.0%	0	0.0%	25
Hospital 3	10	9.6%	2	1.9%	104
Hospital 4	5	13.9%	0	0.0%	36
Hospital 6	10	50.0%	0	0.0%	20
Hospital 7	3	25.0%	0	0.0%	12
Hospital 8	6	25.0%	0	0.0%	24
TOTAL	**40**	**18.1%**	**2**	**0.9%**	**221**

Table 3.8: Questionnaires issued to psychiatric departments

	Number of questionnaires received	% of questionnaires received	Incomplete / erroneous questionnaires	% incomplete / erroneous questionnaires	Total number of nurses in department
Hospital 2	9	25.0%	5	13.9%	36
Hospital 3	21	40.4%	4	7.7%	52
Hospital 5	11	34.4%	0	0.0%	32
TOTAL	**41**	**34.2%**	**9**	**7.5%**	**120**

3.10 DATA ANALYSIS

After the questionnaires were collected, the researcher reviewed them, and manually removed any obviously erroneous questionnaires or those with entire pages not completed. A total of 40 completed questionnaires from nurses working in emergency departments, and 41 completed questionnaires from nurses working in psychiatric departments were considered viable, and were included in the study. A numerical identifier was allocated to each included questionnaire, and the data from the questionnaires were entered into and analysed with *Excel*® and *SPSS®25*. The questionnaires did not contain any personal details of the respondents. In order to maintain the anonymity of the data, no identifiers were allocated to the signed informed consent forms and it was not possible to link the consent forms to the questionnaires.

The data were split according to the employment field of respondents into emergency and psychiatry groups. Demographic data were entered as text, and recoded as

integers (Appendix 15) to facilitate data analysis. Frequencies were performed for language of questionnaire, gender, age, employer, field of employment, category of nurse, amount of time working in current specialty, choice of department, as well as for personality trait and job satisfaction subscales. The data were all manually rechecked by the researcher in order to ensure that the data had been captured correctly from the questionnaires.

For each respondent the average score of each personality trait and job satisfaction scale was calculated according to the scoring algorithms provided by the authors of the instruments. According to both questionnaires' instructions, one missing answer is allowed per subscale. If more than one missing answer is given, the result for that subscale is considered invalid.

Where respondents did not answer a question, or where respondents selected more than one answer for a question, it was entered as zero. If only one answer in a subscale of the *Swedish universities Scales of Personality* was entered as zero, the sum of the results would be divided by the total number of questions in that subscale minus the one question which was not answered. If more than one answer in a subscale was entered as zero, the equation used to calculate the results would return the value "-9" and it would not be possible to use the results of that subscale. No respondent had more than one missing or multiple response for any of the personality trait subscales.

The equation used in the *Measure of Job Satisfaction* adds the responses for each subscale and divides the total by the amount of questions that were answered. The researcher manually checked whether any respondents had more than one value of zero for any of the subscales in order to determine whether any of the results were invalid. No respondent had more than one missing or multiple response for any of the job satisfaction subscales. Descriptive statistics were used to describe the characteristics of the two groups.

The *Swedish universities Scales of Personality* consists of a 4-point Likert scale. For data analysis, scores were allocated to the statements as follows: "Does not apply at all" = 1, "Does not apply very well" = 2, "Applies pretty much" = 3, and "Applies completely" = 4. The average scores of individuals' personality traits were calculated as a value out of four, rounded to the nearest whole number, and

described as follows: 1 = very low, 2 = low, 3 = high, and 4 = very high. The very low and low ranges were categorised together as “low”, and the high and very high ranges were categorised together as “high”, in order to allow more meaningful interpretation of data.

The *Measure of Job Satisfaction* consists of a 5-point Likert scale. For data analysis, scores were allocated to each item as follows: “Very dissatisfied” = 1, “Dissatisfied” = 2, “Neither satisfied nor dissatisfied” = 3, “Satisfied” = 4, and “Very satisfied” = 5. The average scores of individuals’ job satisfaction scales were calculated as a value out of five, rounded to the nearest whole number, and described as follows: 1 = very low, 2 = low, 3 = neutral, 4 = high, and 5 = very high. The very low and low ranges were also categorised together as “low”, and the high and very high ranges were categorised together as “high”, as discussed above. The “neutral” range remained unchanged.

The distribution of the data was assessed by examining kurtosis and skewness results, and by conducting a Shapiro-Wilk test. It was considered appropriate to examine all three results, due to the small sample sizes of this study. Kurtosis is a measure of the flatness or peakedness of the distribution of data, and skewness is an indication of whether data are asymmetrically distributed either to the left or right of the mean (Sharma, 2018:163, 178). The Shapiro-Wilk test also gives an indication of the normality of the distribution of data, and is considered appropriate for small sample sizes (Abbott, 2016:232). The skewness, kurtosis and Shapiro-Wilk test results indicated that the data were not normally distributed (Tables A6-13 in Appendix 17), so Spearman’s rank correlation coefficient for nonparametric data was selected to calculate the correlations of the data.

The strength of correlation will be considered negligible if Spearman’s ρ is between absolute values 0 and 0.29, and it will be considered weak if Spearman’s ρ is between absolute values 0.30 and 0.49. It will be considered moderate if Spearman’s ρ is between absolute values 0.50 and 0.69, and it will be considered strong if Spearman’s ρ is between absolute values 0.70 and 0.89. It will be considered very strong if Spearman’s ρ is between absolute values 0.90 and 1.00 (Hinkle, Wiersma & Jurs, 2003:109). A p-value of 0.05 was considered statistically significant, with a confidence interval of 95%. For descriptive statistics, categorised scores were used. For inferential statistics, raw scores were used, as will further be explained in section 4.3.

3.11 SUMMARY

Chapter 3 described the research methodology in greater detail and gave further information on the study design, population, and sampling. The pilot study was discussed as well as the reliability and validity of the *Swedish universities Scales of Personality* and *Measure of Job Satisfaction*. The data collection and data analysis procedures were also outlined. The study findings are discussed in Chapter 4.

CHAPTER 4
RESULTS

4.1 INTRODUCTION

This chapter contains the data that has been collected, and presents the results in tables and graphs. A summary of respondents' biographical data is followed by a summary of the data regarding their personality traits and job satisfaction. The chapter concludes with the correlation results between personality traits and job satisfaction. Percentages are rounded off to the first decimal place. Means are rounded off to the second decimal place. Spearman's rank correlation coefficient (ρ), standard error (*SE*) and p-values are rounded off to the third decimal place.

4.2 SECTION A: BIOGRAPHICAL DATA

The biographical data of respondents were analysed with descriptive statistics. A summary of the results is presented in Table 4.1. Bar charts were created from the biographical data and are presented in Figures 4.1-4.8. The data of respondents working in emergency and psychiatric departments are displayed alongside each other in the graphs in order to facilitate ease of comparison. Dark blue bars denote the data of respondents working in emergency departments, and light blue bars denote the data of respondents working in psychiatric departments.

The Chi-squared test was used to determine whether there were significant differences between the characteristics of the emergency and psychiatry groups and South African nursing workforce. The Fisher's exact test was used when one or more cells had expected values of less than five. A two-sided level of significance ($\alpha = 0.05$) was used throughout and reported to the third decimal place.

Table 4.1: Biographical data of nurse respondents compared to South African nursing workforce statistics 2017: Categorical variables

Variable	Respondents Working in Emergency Departments (Study Sample) (n_E = 40)	Respondents Working in Psychiatric Departments (Study Sample) (n_P = 41)	South African Nursing Workforce Statistics 2017
Language of Questionnaire (n/%)			
English	29 (72.5)	33 (80.5)	– (27,8) [3]
Afrikaans	11 (27.5)	5 (12.2)	– (34,9) [3]
IsiXhosa	0 (0)	3 (7.3)	– (29,2) [3]
Gender (n/%)			
Male	7 (17.5)	5 (12.2)	27,645 (9.6)
Female	33 (82.5)	36 (87.8)	259,818 (90.4)
Age (n/%)			
Under 25	2 (5.0)	3 (7.3)	1,357 (0.5)
25 — 34	14 (35.0)	12 (29.3)	62,390 (21.7)
35 — 44	8 (20.0)	10 (24.4)	84,755 (29.5)
45 — 54	9 (22.5)	11 (26.8)	71,559 (24.9)
55 and over	7 (17.5)	5 (12.2)	66,962 (23.3)
Employer (n/%)			
Public	18 (45.0)	41 (100.0)	– (62) [4]
Private	22 (55.0)	0 (0)	– (38) [4]
Nursing Category (n/%)			
Registered Nurse	27 (67.5)	20 (48.8)	142,341 (49.5)
Enrolled Nurse	8 (20.0)	3 (7.3)	74,683 (26.0)
Enrolled Nursing Assistant	4 (10.0)	17 (41.5)	70,439 (24.5)
Not Given	1 (2.5)	1 (2.4)	
Time Working in Specialty (n/%)			
6 months - 2 years	12 (30.0)	15 (36.6)	– [5]
3 - 5 years	8 (20.0)	9 (22.0)	– [5]
6 - 10 years	6 (15.0)	8 (19.5)	– [5]
11 - 15 years	6 (15.0)	2 (4.9)	– [5]
16 - 20 years	1 (2.5)	2 (4.9)	– [5]
More than 20 years	7 (17.5)	5 (12.2)	– [5]
Choice of Specialty (n/%)			
I chose	31 (77.5)	9 (22.0)	– [5]
I didn't choose	9 (22.5)	32 (78.0)	– [5]

[3] Percentage of the population of the City of Cape Town who speak the listed languages. Based on most the recent statistics (Statistics South Africa, 2011)
[4] Based on 2013 statistics (Econex, 2013)
[5] Data not available

4.2.1 Fields of employment (n_E = 40, n_P = 41)

Figure 4.1 shows that approximately half of the nurses that responded were employed in emergency departments (n_E = 40, 49.4%), and approximately half were employed in psychiatric departments (n_P = 41, 50.6%).

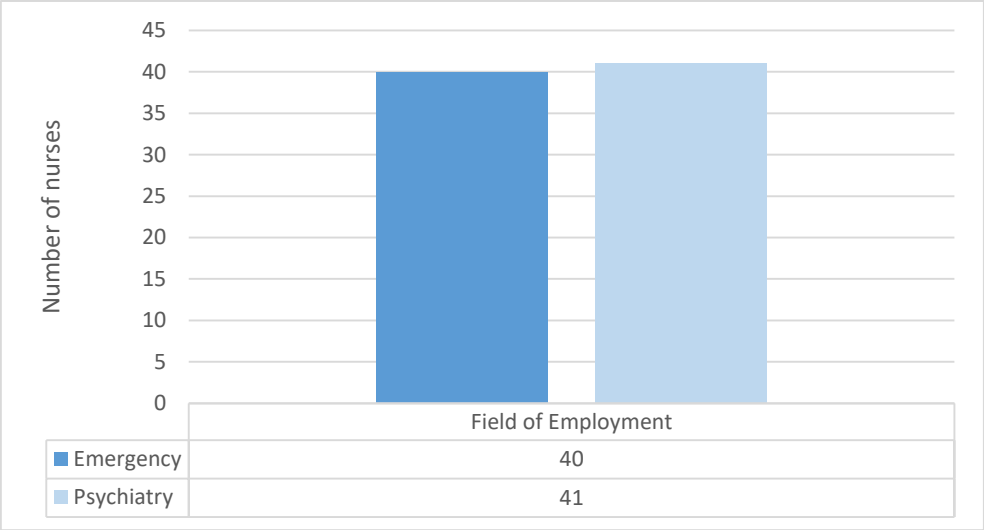


Figure 4.1: Fields of employment

4.2.2 Language of questionnaires completed (n_E = 40, n_P = 41)

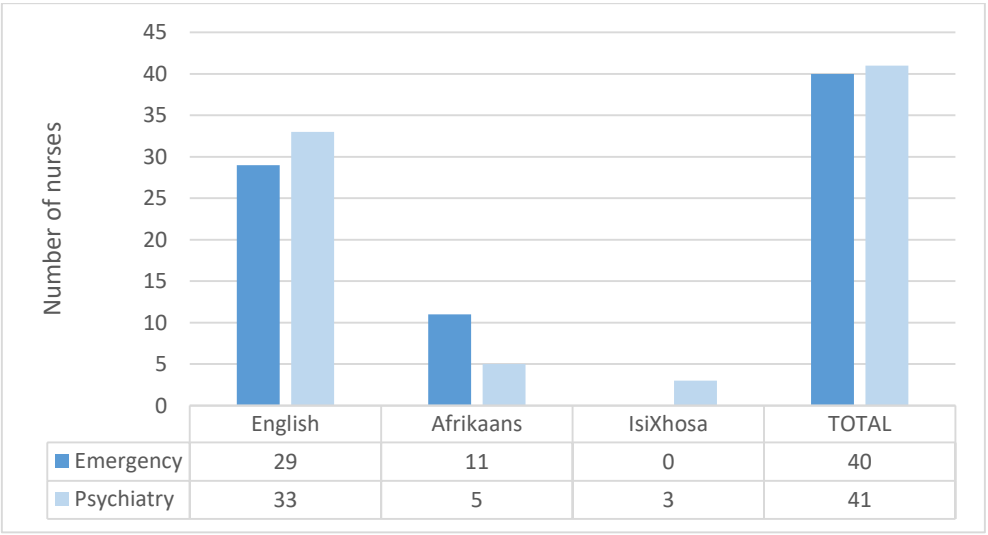
The language of the questionnaires that were completed was added as a study variable, and the results are displayed in Figure 4.2. A significantly greater ratio of English questionnaires were completed by both the emergency group (χ^2 [1] = 19.57, p < 0.001) and the psychiatry group (χ^2 [2] = 122.23, p < 0.001), compared to the most recent data on the ratio of first-language English speakers in Cape Town (Statistics South Africa, 2011). As discussed in section 3.6.3.2, approximately a third of the residents of Cape Town speak English as their first language, approximately a third speak Afrikaans, and approximately a third speak isiXhosa. Since no isiXhosa questionnaires had been completed by the emergency group, only the ratios of Afrikaans and English speakers of this group were compared to the ratios of Afrikaans and English speakers in Cape Town.

The large number of English questionnaires completed in this study may reflect the usage of English as the *lingua franca* in South African workplaces. There may also be a larger amount of English-speaking nurses in the Western Cape compared to the

amount of English speakers who live there, due to nurses moving to the Western Cape from other provinces and other countries to pursue job opportunities.

According to The Constitution of the Republic of South Africa [No. 108 of 1996] s27 (3) (Republic of South Africa, 1996) all individuals, regardless of their nationality, are entitled to emergency care. Therefore the patients presenting at emergency departments may also be from a variety of nationalities, regardless of citizenship, and require assistance from nurses working in emergency departments who are able to speak English. Access to long-term psychiatric care may prove more difficult to those without South African citizenship, therefore the language distribution of nurses working in psychiatric departments may reflect the language distribution of South African citizens more closely.

The researcher did not gather data regarding the race of respondents, therefore it is uncertain whether respondents are representative of the population according to the racial distribution of nurses in Cape Town.



	English	Afrikaans	IsiXhosa	TOTAL
Emergency	29	11	0	40
Psychiatry	33	5	3	41

Figure 4.2: Language of questionnaires completed

As the language of the questionnaires that were answered were not representative of the ratio of languages spoken by the population of Cape Town, it was identified as a potential confounding variable. Therefore, the Cronbach's α coefficient values of the questionnaires were evaluated according to language (Appendix 16).

The Cronbach's α coefficient values of the combined emergency and psychiatry groups for respondents who completed English questionnaires were similar to the total

Cronbach's α coefficient values of all the questionnaires, with the exception of the *Swedish universities Scales of Personality* subscale *lack of assertiveness*, which was much lower for the English subgroup than for the combined Afrikaans, English and isiXhosa group. Most of the Cronbach's α coefficient values of the Afrikaans subgroup were similar, or slightly higher than those of the combined group. The Cronbach's α coefficient values of the isiXhosa subgroup were mostly higher than those of the combined group, with the exception of the *Swedish universities Scales of Personality* subscales *stress susceptibility* and *impulsiveness*, and the *Measure of Job Satisfaction* subscales *satisfaction with professional support* and *satisfaction with pay*, which were much lower than the combined group. However, the isiXhosa subgroup consisted of only three nurses, so the differences may not be significant. After evaluation, it was concluded that the language of the questionnaires did not have a great effect on the reliability of the *Swedish universities Scales of Personality* and the *Measure of Job Satisfaction*, and respondents understood the questionnaires sufficiently for language not to be a confounding variable.

4.2.3 Gender ($n_E = 40$, $n_P = 41$)

As seen in Figure 4.3, a significantly larger ratio of male nurses working in emergency departments responded to the study (χ^2 [1] = 7.87, p = 0.005), compared to the male to female ratio of nurses registered with the South African Nursing Council (SANC). The number of male and female nurses working in psychiatric departments in this study are proportional to the number of male and female nurses registered with SANC (χ^2 [1] = 0.66, p = 0.415). The data from SANC is of the entire nursing workforce in South Africa and does not take into account differences of gender distribution across different nursing specialties. The researcher was unable to find any data on the gender distribution of nurses working in different specialties.

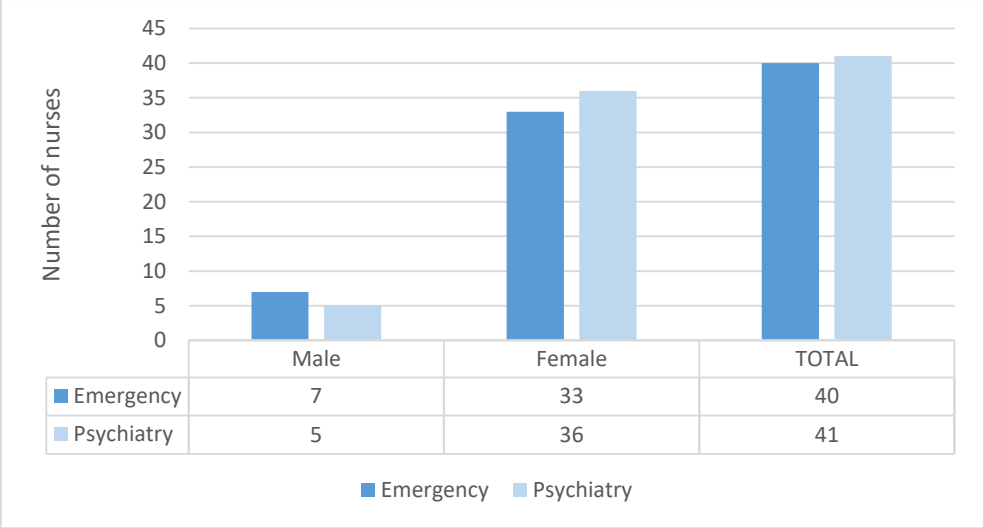


Figure 4.3: Gender

4.2.4 Age ($n_E = 40$, $n_P = 41$)

Figure 4.4 shows the age range of respondents. There was a significant difference between the ratio of nurses from the different age groups in the emergency sample compared to the age distribution of the South African nursing workforce in all specialties (Fisher's exact = 250.05, $p < 0.001$). More nurses who were younger than 35 years old responded, compared to the age distribution of the South African nursing workforce, and fewer who were 35 years and older responded, compared to the South African nursing workforce.

There was also a significant difference between the ratio of nurses from the different age groups in the psychiatry sample compared to the age distribution of the South African nursing workforce (Fisher's exact = 246.75, $p < 0.001$). Significantly more respondents working in psychiatric departments reported being younger than 35 years of age, and fewer in the 35-44 and over 54 age ranges, compared to South African nursing averages for all specialties. As emergency and psychiatric departments experience the largest turnover rates in the United States (NSI Nursing Solutions, Inc., 2016:10), the results may reflect the loss of nurses from these two specialties over time in South Africa as well, and hence be representative of their nurse populations.

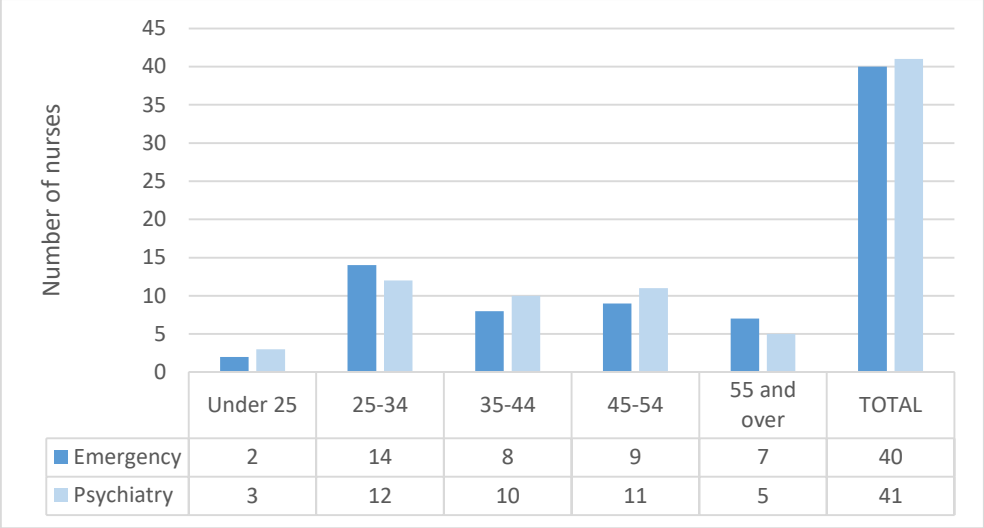


Figure 4.4: Age

4.2.5 Employer ($n_E = 40$, $n_P = 41$)

About half of the respondents working in emergency departments were employed in the public sector ($n_E = 18$, 45%), and half in the private sector ($n_P = 22$, 55%). A significantly larger ratio of nurses employed in private emergency departments responded to the study (χ^2 [1] = 12.267, $p < 0.001$), compared to those employed in public emergency departments, despite a larger number of nurses being employed in the public sector, and the study sample being representative of the numbers of nurses working in the two sectors. The researcher observed that the emergency departments of the public hospitals at which she conducted the study were much busier than the emergency departments of the private hospitals, so the nurses working in the public sector may have been more tired, and be less inclined to complete questionnaires during their breaks or at home.

All the respondents working in psychiatric departments were employed in the public sector ($n_P = 22$, 100%), as shown in Figure 4.5. Nurses working in private psychiatric departments are not represented in this study as the psychiatric ward of the private hospital did not provide consent to conduct the study there before the study was conducted. Therefore, it was not possible to compare the numbers of nurses working in public and private psychiatric departments.

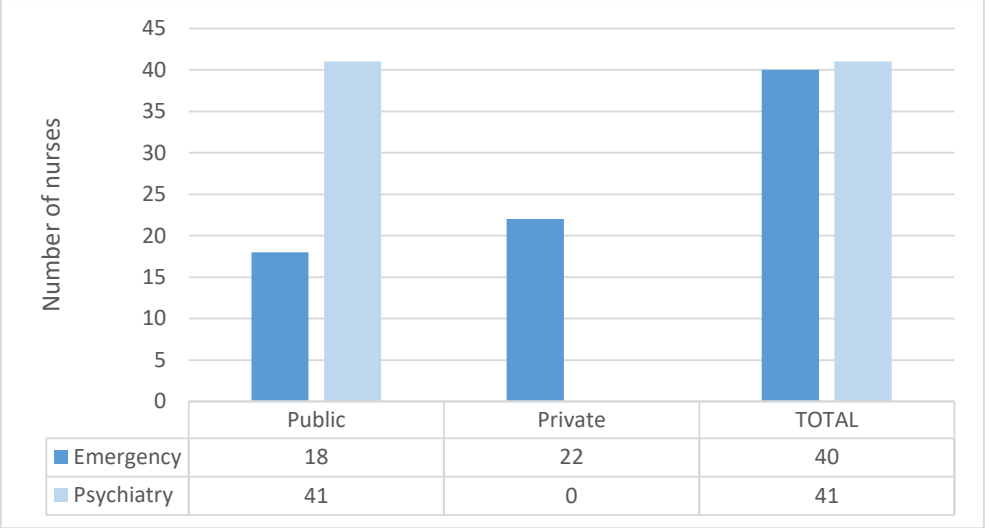


Figure 4.5: Employer

4.2.6 Category of nurse (n_E = 39, n_P = 40)

As seen in Figure 4.6, the majority of respondents working in emergency departments were Registered Nurses (n_E = 27, 67.5%). Eight respondents were Enrolled Nurses (20%), four were Enrolled Nursing Assistants (10%), and one respondent (2.5%) did not indicate his/her nursing category. A similar number of Registered Nurses (n_P = 20, 48.8%) and Nursing Assistants (n_P = 17, 41.5%) from psychiatric departments responded. Three Enrolled Nurses (7.3%) responded and one respondent (2.4%) did not indicate his/her nursing category.

According to SANC, 49.5% of nurses in South Africa are Registered Nurses, 26% are Enrolled Nurses, and 24.5% are Enrolled Nursing Assistants (South African Nursing Council, 2018:4-5). The researcher was unable to find any data on the distribution of nurses according to specialty. Enrolled Nursing Assistants working in emergency departments and Enrolled Nurses working in psychiatric departments may be underrepresented in this sample due to a low response rate. There may also be fewer Enrolled Nurses employed in psychiatric departments as dispensing scheduled drugs, as would be required in psychiatric wards, is not in their scope of practice. The ratio of respondents from the different nursing categories working in emergency departments differed significantly from the ratio of nurses in those categories registered with SANC (χ^2 [2] = 17.18, $p < 0.001$). More Registered Nurses and fewer Enrolled Nursing Assistants from the emergency group responded. As Registered Nurses may receive some exposure to the research process during their training, they may be more aware

of the importance of research, and hence be more likely to take part in this study, compared to Enrolled Nursing Assistants.

The ratio of respondents from nurses working in psychiatric departments also differed significantly from the ratio of nurses in those categories registered with SANC (χ^2 [2] = 26.887, p < 0.001). A similar ratio of Registered Nurses from psychiatric departments, as are registered with SANC, completed questionnaires. Fewer Enrolled Nurses and more Enrolled Nursing Assistants, in proportion to those registered with SANC, participated in the study. Due to the shortage of Registered Nurses working in psychiatric departments (Department of Higher Education and Training, 2016:15), Enrolled Nurses may have a greater workload, resulting in them being more tired and less willing to complete a questionnaire.

As discussed in section 3.6.1, the *Measure of Job Satisfaction* is sensitive to category of nurse (Traynor & Wade, 2011b:1), but the number of nurses in each category was too small to analyse separately.

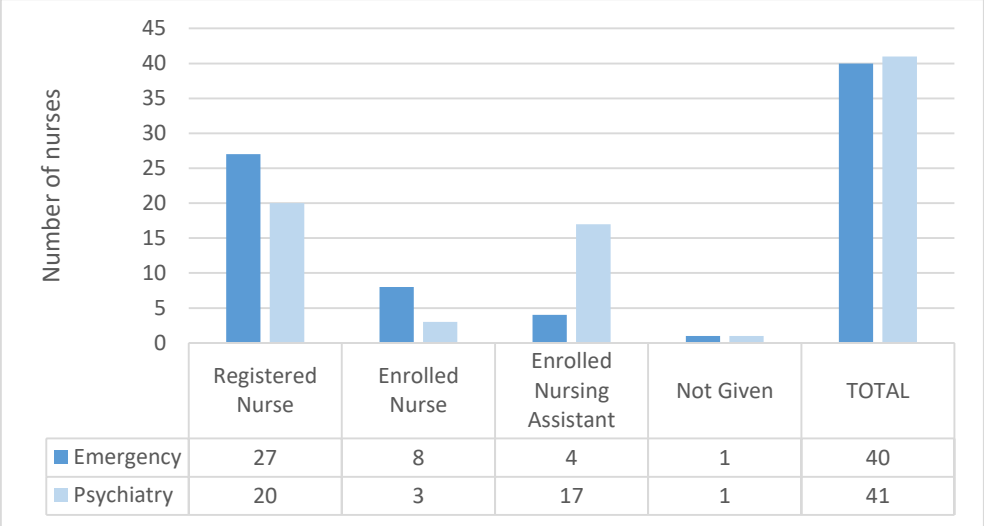
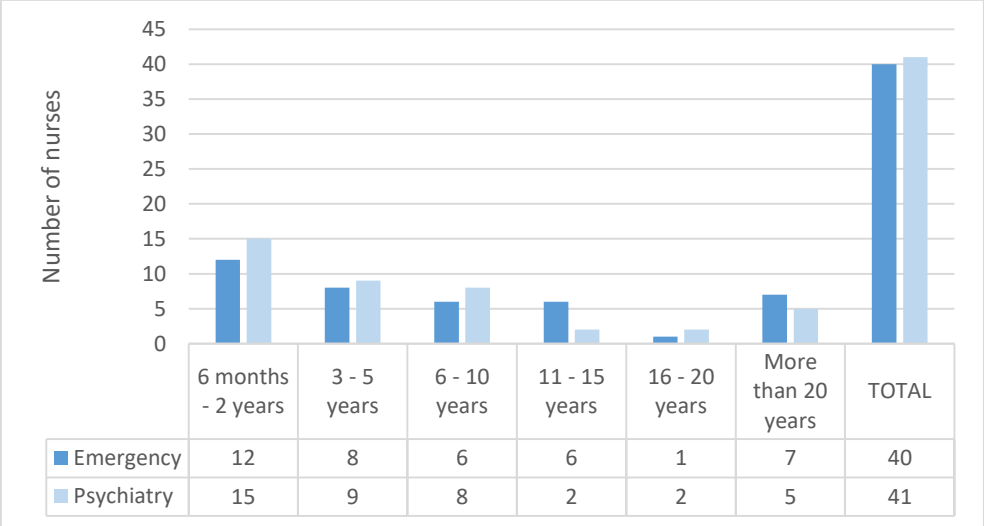


Figure 4.6: Category of nurse

4.2.7 Amount of time working in current specialty (n_E = 40, n_P = 41)

As displayed in Figure 4.7, most respondents from both specialties had been employed in that specialty for between 6 months and 2 years (n_E = 12, 30%; n_P = 15, 36.6%), indicating high turnover in the last two years. The number of nurses working in both specialties decreases steadily as experience increases, with an increase again in the number of nurses with more than 20 years' experience. The researcher was not

able to find any information on the average amount of time that South African nurses are employed in specific nursing fields. However, as mentioned previously, a study conducted in the United States of America (USA) found that Registered Nurses in psychiatric departments have the highest, and Registered Nurses in emergency departments the second-highest turnover rates (NSI Nursing Solutions, Inc., 2016:10). As an increased period of employment in these two specialties in this sample corresponds with fewer nurses employed in these specialties, the sample may be comparable to general trends.



	6 months - 2 years	3 - 5 years	6 - 10 years	11 - 15 years	16 - 20 years	More than 20 years	TOTAL
Emergency	12	8	6	6	1	7	40
Psychiatry	15	9	8	2	2	5	41

Figure 4.7: Amount of time working in current specialty

4.2.8 Choice of department (n_E = 40, n_P = 41)

The majority of respondents working in emergency departments had chosen to work there (n_E = 31, 77.5%), whereas the majority of respondents working in psychiatric departments had not chosen to work there (n_P = 32, 78%) (Figure 4.8). The researcher was not able to find any information on the number of nurses who are able to work in the specialties of their choice in South Africa.

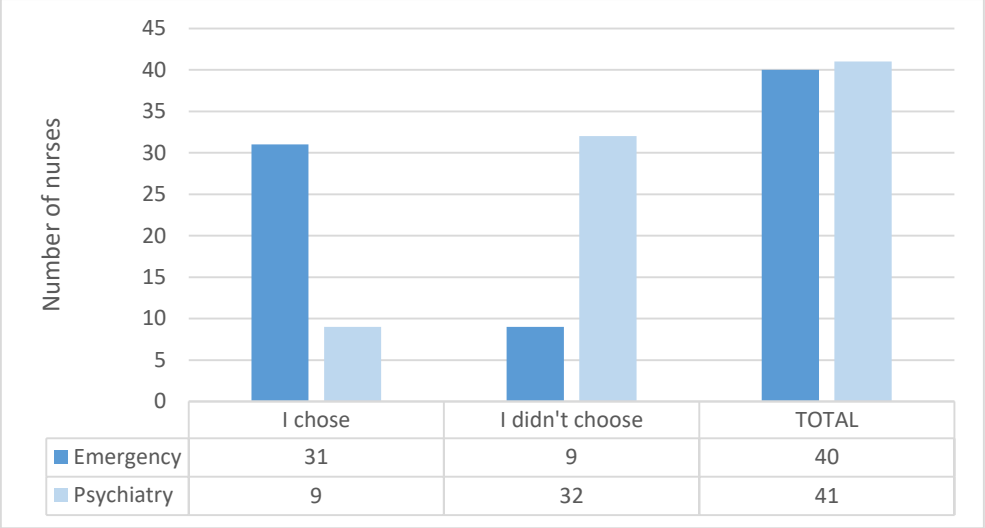


Figure 4.8: Choice of department

4.3 NORMALITY TESTING

Normality testing of data was done using the Shapiro-Wilk test, and by examining the skewness (*sk*) and kurtosis (*Kurt*) of data (Tables A6-13 in Appendix 17). The statistician indicated that data were to be considered nonparametric if the p-value was less than the level of significance ($\alpha = 0.05$) in the Shapiro-Wilk test results, when the absolute value of the skew was more than double the standard error of skewness (*SE*), or when absolute kurtosis values were higher than 2.

In the emergency group, *personal satisfaction* (*sk* = -1.019, *SE* = 0.374), *satisfaction with prospects* (*sk* = -0.765, *SE* = 0.374) and *satisfaction with standards of care* (*sk* = -1.166, *SE* = 0.374) displayed significant negative skewness. The Shapiro-Wilk test indicated that the data of the *detachment* ($p = 0.007$), *personal satisfaction* ($p = 0.002$), *satisfaction with professional support* ($p = 0.017$), *satisfaction with pay* ($p = 0.014$), *satisfaction with prospects* ($p < 0.001$) and *satisfaction with standards of care* ($p < 0.001$) subscales were not normally distributed.

In the psychiatry group, *personal satisfaction* (*sk* = -1.094, *SE* = 0.369), *satisfaction with prospects* (*sk* = -0.818, *SE* = 0.369) and *overall satisfaction* (*sk* = -0.923, *SE* = 0.369) displayed significant negative skewness, and *satisfaction with workload* (*sk* = -1.155, *SE* = 0.369; *Kurt* = 3.177, *SE* = 0.724) and *satisfaction with standards of care* (*sk* = -1.274, *SE* = 0.369; *Kurt* = 2.517, *SE* = 0.724) displayed significant negative skewness and high kurtosis. The distribution of the data of *satisfaction with workload* was leptokurtic, and the distribution of the data of *satisfaction with standards*

of care was platykurtic. The Shapiro-Wilk test indicated that the data of the *impulsiveness* subscale and all of the job satisfaction subscales except *satisfaction with professional support* were not normally distributed.

As the normality testing results indicated that the data were nonparametric, it was considered appropriate to use Spearman's rank correlation coefficient to calculate the correlations between the personality traits and job satisfaction of respondents.

4.4 SECTION B: PERSONALITY TRAITS AND JOB SATISFACTION OF NURSES WORKING IN EMERGENCY DEPARTMENTS

Due to the small sample size of both specialties, some results were combined and recoded to enable more meaningful interpretation of the descriptive statistics of the data, as mentioned in section 3.10. For each personality trait and job satisfaction subscale, low and very low score ranges were categorised together and recoded as "low", and high and very high score ranges were categorised together and recoded as "high". The "neutral" category for the *Measure of Job Satisfaction* remained unchanged.

Raw scores were used to calculate the mean scores of items for each personality trait and job satisfaction subscale. A Mann-Whitney U test was done to compare the distributions of each subscale of the questionnaires of the emergency and psychiatry groups, in order to determine whether the two groups were significantly different from each other (Abbott, 2016:246).

As indicated in Table 4.2 and Table 4.3, the means of *psychic trait anxiety* (Mann-Whitney U, p= 0.029), *stress susceptibility* (Mann-Whitney U, p= 0.036), *lack of assertiveness* (Mann-Whitney U, p= 0.017) and *satisfaction with training* (Mann-Whitney U, p= 0.005) were found to be statistically different from each other, indicating that there may be significant differences between some of the personality traits and levels of job satisfaction of nurses working in emergency and psychiatric departments.

Table 4.2: Mann-Whitney U test results for personality trait subscales

Personality Trait Subscales	Total Emergency vs Psychiatry Groups p-values Sig. (2-tailed)
Psychic Trait Anxiety	0.029
Stress Susceptibility	0.036
Lack of Assertiveness	0.017
Impulsiveness	0.570
Adventure-seeking	0.900
Detachment	0.151

Table 4.3: Mann-Whitney U test results for job satisfaction subscales

Job Satisfaction Subscales	Total Emergency vs Psychiatry Groups p-values Sig. (2-tailed)
Personal Satisfaction	0.156
Satisfaction with Workload	0.338
Satisfaction with Professional Support	0.089
Satisfaction with Training	0.005
Satisfaction with Pay	0.683
Satisfaction with Prospects	0.134
Satisfaction with Standards of Care	0.749
Overall Satisfaction	0.329

Normality testing revealed that the data were not normally distributed (Tables A6-13 in Appendix 17), thus correlations were calculated with the Spearman's rank correlation coefficient.

4.4.1 Personality traits of nurses working in emergency departments

The raw scores and recoded scores of the personality trait frequencies of nurses working in emergency departments are provided in Table 4.4.

Table 4.4: Personality traits of nurses working in emergency departments

Variable	Emergency Group (n_E = 40)	Emergency Group (n_E = 40)	Recoded variable	Emergency Group (n_E = 40)
Psychic Trait Anxiety		**(n/%)**		**(n/%)**
Mean	2.15			
Standard Deviation	0.557			
Very low		7 (17.5)	Low	29 (72.5)
Low		22 (55.0)		
High		11 (27.5)	High	11 (27.5)
Very high		0 (0)		
Stress Susceptibility				
Mean	2.00			
Standard Deviation	0.643			
Very low		9 (22.5)	Low	32 (80.0)
Low		23 (57.5)		
High		7 (17.5)	High	8 (20.0)
Very high		1 (2.5)		
Lack of Assertiveness				
Mean	2.01			
Standard Deviation	0.523			
Very low		8 (20.0)	Low	33 (82.5)
Low		25 (62.5)		
High		7 (17.5)	High	7 (17.5)
Very high		0 (0)		
Impulsiveness				
Mean	2.24			
Standard Deviation	0.497			
Very low		4 (10.0)	Low	26 (65.0)
Low		22 (55.0)		
High		14 (35.0)	High	14 (35.0)
Very high		0 (0)		
Adventure-seeking				
Mean	2.65			
Standard Deviation	0.531			
Very low		1 (2.5)	Low	15 (37.5)
Low		14 (35.0)		
High		22 (55.0)	High	25 (62.5)
Very high		3 (7.5)		
Detachment				
Mean	2.23			
Standard Deviation	0.557			
Very low		1 (2.5)	Low	26 (65.0)
Low		25 (62.5)		
High		14 (35.0)	High	14 (35.0)
Very high		0 (0)		

The majority of respondents working in emergency departments reported low levels of *psychic trait anxiety* (mean = 2.15, *SD* = 0.557, 72.5%), *stress susceptibility* (mean = 2.00, *SD* = 0.643, 80%) and *lack of assertiveness* (mean = 2.01, *SD* = 0.523, 82.5%). Two thirds reported low levels of *impulsiveness* (mean = 2.24, *SD* = 0.497, 65%) and *detachment* (mean = 2.23, *SD* = 0.557, 65%), and two thirds reported high levels of *adventure-seeking* (mean = 2.65, *SD* = 0.531, 65%).

4.4.2 Job satisfaction of nurses working in emergency departments

The raw scores and recoded scores for the job satisfaction subscales of nurses working in emergency departments are provided in Table 4.5.

Table 4.5: Job satisfaction of nurses working in emergency departments

Variable	Emergency Group (n_E = 40)	Emergency Group (n_E = 40)	Recoded variable	Emergency Group (n_E = 40)
Personal Satisfaction		**(n/%)**		**(n/%)**
Mean	3.69			
Standard Deviation	1.016			
Very low		1 (2.5)	Low	6 (15.0)
Low		5 (12.5)		
Neutral		5 (12.5)	Neutral	5 (12.5)
High		20 (50.0)	High	29 (72.5)
Very high		9 (22.5)		
Satisfaction with Workload				
Mean	3.19			
Standard Deviation	0.977			
Very low		2 (5.0)	Low	11 (27.5)
Low		9 (22.5)		
Neutral		13 (32.5)	Neutral	13 (32.5)
High		13 (32.5)	High	16 (40.0)
Very high		3 (7.5)		
Satisfaction with Professional Support				
Mean	3.65			
Standard Deviation	0.930			
Very low		1 (2.5)	Low	6 (15.0)
Low		5 (12.5)		
Neutral		8 (20.0)	Neutral	8 (20.0)
High		20 (50.0)	High	26 (65.0)
Very high		6 (15.0)		

Variable	Emergency Group (n_E = 40)	Emergency Group (n_E = 40)	Recoded variable	Emergency Group (n_E = 40)
Satisfaction with Training		**(n/%)**		**(n/%)**
Mean	3.35			
Standard Deviation	0.949			
Very low		1 (2.5)	Low	8 (20.0)
Low		7 (17.5)		
Neutral		13 (32.5)	Neutral	13 (32.5)
High		17 (42.5)	High	19 (47.5)
Very high		2 (5.0)		
Satisfaction with Pay				
Mean	2.70			
Standard Deviation	1.216			
Very low		6 (15.0)	Low	20 (50.0)
Low		14 (35.0)		
Neutral		7 (17.5)	Neutral	7 (17.5)
High		10 (25.0)	High	13 (32.5)
Very high		3 (7.5)		
Satisfaction with Prospects				
Mean	3.63			
Standard Deviation	0.893			
Very low		1 (2.5)	Low	4 (10.0)
Low		3 (7.5)		
Neutral		11 (27.5)	Neutral	11 (27.5)
High		20 (50.0)	High	25 (62.5)
Very high		5 (12.5)		
Satisfaction with Standards of Care				
Mean	3.67			
Standard Deviation	0.945			
Very low		2 (5.0)	Low	4 (10.0)
Low		2 (5.0)		
Neutral		7 (17.5)	Neutral	7 (17.5)
High		22 (55.0)	High	29 (72.5)
Very high		7 (17.5)		
Overall Satisfaction				
Mean	3.36			
Standard Deviation	0.825			
Very low		1 (2.5)	Low	6 (15.0)
Low		5 (12.5)		
Neutral		15 (37.5)	Neutral	15 (37.5)
High		17 (42.5)	High	19 (47.5)
Very high		2 (5.0)		

For each job satisfaction subscale, with the exception of *satisfaction with pay*, the largest percentage of nurses working in emergency departments reported being satisfied with all aspects of their jobs as follows: *personal satisfaction* (n_E = 29, mean = 3.69, *SD* = 1.016, 72.5%), *satisfaction with workload* (n_E = 16, mean = 3.19, *SD* = 0.977, 40%), *satisfaction with professional support* (n_E = 26, mean = 3.65, *SD* = 0.930, 65%), *satisfaction with training* (n_E = 19, mean = 3.35, *SD* = 0.949, 47.5%), *satisfaction with prospects* (n_E = 25, mean = 3.63, *SD* = 0.893, 62.5%), *satisfaction with standards of care* (n_E = 29, mean = 3.67, *SD* = 0.945, 72.5%) and *overall satisfaction* (n_E = 19, mean = 3.36, *SD* = 0.825, 47.5%).

Half of the respondents working in emergency departments reported low *satisfaction with pay* (n_E = 20, mean = 2.70, *SD* = 1.216, 50%), a third reported high *satisfaction with pay* (n_E = 13, mean = 2.70, *SD* = 1.216, 32.5%), and the remaining nurses reported neutral *satisfaction with pay* (n_E = 7, mean = 2.70, *SD* = 1.216, 17.5%).

4.4.3 Personality traits and job satisfaction of nurses working in emergency departments

The correlations between the personality traits and job satisfaction scales of the emergency group are displayed in Table 4.6. Those of the pilot study are provided in Appendix 14.

Table 4.6: Personality traits and job satisfaction of nurses working in emergency departments

			Job Satisfaction Subscales							
	Variables	**Spearman's Rank Correlation Coefficient**	***Personal Satisfaction***	***Satisfaction with Workload***	***Satisfaction with Professional Support***	***Satisfaction with Training***	***Satisfaction with Pay***	***Satisfaction with Prospects***	***Satisfaction with Standards of Care***	***Overall Satisfaction***
Personality Traits	***Psychic Trait Anxiety***	Correlation Coefficient	-0.493 [6]	-0.558 [6]	-0.592 [6]	-0.616 [6]	-0.462 [6]	-0.416 [6]	-0.350 [7]	-0.612 [6]
		Sig. (2-tailed)	0.001	0.000	0.000	0.000	0.003	0.008	0.027	0.000
	Stress Susceptibility	Correlation Coefficient	-0.504 [6]	-0.647 [6]	-0.677 [6]	-0.736 [6]	-0.552 [6]	-0.490 [6]	-0.315 [7]	-0.701 [6]
		Sig. (2-tailed)	0.001	0.000	0.000	0.000	0.000	0.001	0.048	0.000
	Lack of Assertiveness	Correlation Coefficient	-0.149	-0.046	-0.099	-0.174	0.064	-0.144	-0.158	-0.100
		Sig. (2-tailed)	0.359	0.780	0.545	0.284	0.693	0.374	0.331	0.538
	Impulsiveness	Correlation Coefficient	-0.302	-0.351 [7]	-0.226	-0.256	-0.314 [7]	-0.340 [7]	-0.199	-0.337 [7]
		Sig. (2-tailed)	0.058	0.026	0.160	0.110	0.049	0.032	0.218	0.034
	Adventure-seeking	Correlation Coefficient	-0.246	-0.173	-0.150	-0.230	-0.265	-0.115	-0.076	-0.224
		Sig. (2-tailed)	0.126	0.285	0.355	0.154	0.099	0.479	0.640	0.165
	Detachment	Correlation Coefficient	-0.477 [6]	-0.337 [7]	-0.382 [7]	-0.315 [7]	-0.237	-0.478 [6]	-0.486 [6]	-0.410 [6]
		Sig. (2-tailed)	0.002	0.033	0.015	0.048	0.141	0.002	0.001	0.009

[6] Correlation is significant at the 0.01 level (2-tailed).

[7] Correlation is significant at the 0.05 level (2-tailed).

Weak to strong negative correlations were found between *psychic trait anxiety*, *stress susceptibility, impulsiveness, detachment* and many of the job satisfaction subscales.

Psychic trait anxiety had a moderate negative correlation with *satisfaction with workload* (Spearman's ρ = -0.558, p < 0.001), *satisfaction with professional support* (Spearman's ρ = -0.592, p < 0.001), *satisfaction with training* (Spearman's ρ = -0.616, p < 0.001), and *overall satisfaction* (Spearman's ρ = -0.612, p < 0.001).

Psychic trait anxiety had a weak negative correlation with *personal satisfaction* (Spearman's ρ = -0.493, p = 0.001), *satisfaction with pay* (Spearman's ρ = -0.462, p = 0.003), *satisfaction with prospects* (Spearman's ρ = -0.416, p = 0.008) and *satisfaction with standards of care* (Spearman's ρ = -0.350, p = 0.027).

Stress susceptibility had a strong negative correlation with *satisfaction with training* (Spearman's ρ = -0.736, p < 0.001) and *overall satisfaction* (Spearman's ρ = -0.701, p < 0.001).

Stress susceptibility had a moderate negative correlation with *personal satisfaction* (Spearman's ρ = -0.504, p = 0.001), *satisfaction with workload* (Spearman's ρ = -0.647, p < 0.001), *satisfaction with professional support* (Spearman's ρ = -0.677, p < 0.001) and *satisfaction with pay* (Spearman's ρ = -0.552, p < 0.001).

Stress susceptibility had a weak negative correlation with *satisfaction with prospects* (Spearman's ρ = -0.490, p = 0.001) and *satisfaction with standards of care* (Spearman's ρ = -0.315, p = 0.048).

Impulsiveness had a weak negative correlation with *satisfaction with workload* (Spearman's ρ = -0.351, p = 0.026), *satisfaction with pay* (Spearman's ρ = -0.314, p = 0.049), *satisfaction with prospects* (Spearman's ρ = -0.340, p = 0.032), and *overall satisfaction* (Spearman's ρ = -0.337, p = 0.034).

Detachment had a weak negative correlation with *personal satisfaction* (Spearman's ρ = -0.477, p = 0.002), *satisfaction with workload* (Spearman's ρ = -0.337, p = 0.033), *satisfaction with professional support* (Spearman's ρ = -0.382, p = 0.015), *satisfaction with training* (Spearman's ρ = -0.315, p = 0.048), *satisfaction with prospects* (Spearman's ρ = -0.478, p = 0.002), *satisfaction with standards of care* (Spearman's ρ = -0.486, p = 0.001), *and overall satisfaction* (Spearman's ρ = -0.410, p = 0.009).

4.4.4 Pilot study results of nurses working in emergency departments

No significant correlations were found in the main study for the psychiatric group. As the sample size had been very small and significant correlations were found in the pilot study, the results of the emergency and psychiatric groups of the pilot study are included. As mentioned in section 3.3, the hospital at which the pilot study was conducted had been randomly chosen by paper lots from the three hospitals which contained an emergency and psychiatric department.

In the emergency group of the pilot study, as presented in Appendix 14, a strong negative correlation was found between *detachment* and *satisfaction with professional support* (Spearman's $\rho = -0.702$, $p = 0.016$).

4.5 SECTION C: PERSONALITY TRAITS AND JOB SATISFACTION OF NURSES WORKING IN PSYCHIATRIC DEPARTMENTS

4.5.1 Personality traits of nurses working in psychiatric departments

The raw scores and recoded scores of the personality trait frequencies of nurses working in psychiatric departments are provided in Table 4.7.

Table 4.7: Personality traits of nurses working in psychiatric departments

Variable	Psychiatry Group (n_P = 41)	Psychiatry Group (n_P = 41)	Recoded variable	Psychiatry Group (n_P = 41)
Psychic Trait Anxiety		**(n/%)**		**(n/%)**
Mean	2.46			
Standard Deviation	0.591			
Very low		1 (2.4)	Low	21 (51.2)
Low		20 (48.8)		
High		18 (43.9)	High	20 (48.8)
Very high		2 (4.9)		
Stress Susceptibility				
Mean	2.23			
Standard Deviation	0.491			
Very low		4 (9.8)	Low	28 (68.3)
Low		24 (58.5)		
High		13 (31.7)	High	13 (31.7)
Very high		0 (0)		
Lack of Assertiveness				
Mean	2.29			
Standard Deviation	0.512			
Very low		4 (9.8)	Low	27 (65.9)
Low		23 (56.1)		
High		14 (34.1)	High	14 (34.1)
Very high		0 (0)		
Impulsiveness				
Mean	2.22			
Standard Deviation	0.606			
Very low		3 (7.3)	Low	28 (68.3)
Low		25 (61.0)		
High		13 (31.7)	High	13 (31.7)
Very high		0 (0)		
Adventure-seeking				
Mean	2.65			
Standard Deviation	0.558			
Very low		1 (2.4)	Low	16 (39.0)
Low		15 (36.6)		
High		22 (53.7)	High	25 (61.0)
Very high		3 (7.3)		
Detachment				
Mean	2.39			
Standard Deviation	0.437			
Very low		1 (2.4)	Low	24 (58.5)
Low		23 (56.1)		
High		17 (41.5)	High	17 (41.5)
Very high		0 (0)		

Over two thirds of respondents working in psychiatric departments reported low levels of *stress susceptibility* (68.3%), *lack of assertiveness* (65.9%) and *impulsiveness* (68.3%). Just over half reported high levels of *adventure-seeking* (61%) and low levels of *detachment* (58.5%). Approximately half reported high levels of *psychic trait anxiety* (48.8%), and the other half reported low levels (51.2%).

4.5.2 Job satisfaction of nurses working in psychiatric departments

The raw scores and recoded scores for the job satisfaction subscales of nurses working in psychiatric departments are provided in Table 4.8.

Table 4.8: Job satisfaction of nurses working in psychiatric departments

Variable	Psychiatry Group (n_P = 41)	Psychiatry Group (n_P = 41)	Recoded variable	Psychiatry Group (n_P = 41)
Personal Satisfaction		**(n/%)**		**(n/%)**
Mean	3.48			
Standard Deviation	0.842			
Very low		2 (4.9)	Low	6 (14.6)
Low		4 (9.7)		
Neutral		8 (19.5)	Neutral	8 (19.5)
High		24 (58.6)	High	27 (65.9)
Very high		3 (7.3)		
Satisfaction with Workload				
Mean	3.44			
Standard Deviation	0.684			
Very low		1 (2.5)	Low	4 (9.8)
Low		3 (7.3)		
Neutral		13 (31.7)	Neutral	13 (31.7)
High		22 (53.6)	High	24 (58.5)
Very high		2 (4.9)		
Satisfaction with Professional Support				
Mean	3.36			
Standard Deviation	0.850			
Very low		2 (4.9)	Low	5 (12.2)
Low		3 (7.3)		
Neutral		17 (41.5)	Neutral	17 (41.5)
High		18 (43.9)	High	19 (46.3)
Very high		1 (2.4)		

Variable	Psychiatry Group (n_P = 41)	Psychiatry Group (n_P = 41)	Recoded variable	Psychiatry Group (n_P = 41)
Satisfaction with Training		**(n/%)**		**(n/%)**
Mean	2.79			
Standard Deviation	0.825			
Very low		3 (7.3)	Low	12 (29.3)
Low		9 (22.0)		
Neutral		19 (46.3)	Neutral	19 (46.3)
High		10 (24.4)	High	10 (24.4)
Very high		0 (0)		
Satisfaction with Pay				
Mean	2.57			
Standard Deviation	1.134			
Very low		7 (17.1)	Low	21 (51.2)
Low		14 (34.1)		
Neutral		8 (19.5)	Neutral	8 (19.5)
High		11 (26.8)	High	12 (29.3)
Very high		1 (2.5)		
Satisfaction with Prospects				
Mean	3.39			
Standard Deviation	0.771			
Very low		1 (2.5)	Low	4 (9.8)
Low		3 (7.3)		
Neutral		17 (41.5)	Neutral	17 (41.5)
High		19 (46.4)	High	20 (48.8)
Very high		1 (2.4)		
Satisfaction with Standards of Care				
Mean	3.78			
Standard Deviation	0.805			
Very low		1 (2.4)	Low	3 (7.3)
Low		2 (4.9)		
Neutral		8 (19.5)	Neutral	8 (19.5)
High		22 (53.7)	High	30 (73.2)
Very high		8 (19.5)		
Overall Satisfaction				
Mean	3.24			
Standard Deviation	0.599			
Very low		0 (0)	Low	4 (9.8)
Low		4 (9.8)		
Neutral		16 (39.0)	Neutral	16 (39.0)
High		21 (51.2)	High	21 (51.2)
Very high		0 (0)		

For each job satisfaction subscale, with the exception of *satisfaction with training* and *satisfaction with pay*, the largest percentage of nurses working in psychiatric departments reported being satisfied with all aspects of their jobs as follows: *personal satisfaction* (n_P = 27, 65.9%), *satisfaction with workload* (n_P = 24, 58.5%), *satisfaction with professional support* (n_P = 19, 46.3%), *satisfaction with prospects* (n_P = 20, 48.8%), *satisfaction with standards of care* (n_P = 30, 73.2%) and *overall satisfaction* (n_P = 21, 51.2%).

Half of the respondents working in psychiatric departments reported low *satisfaction with pay* (n_P = 21, 51.2%), and nearly a third reported high *satisfaction with pay* (n_P = 12, 29.3%). Approximately a quarter of the respondents reported high *satisfaction with training* (n_P= 10, 24.4%), and just over a quarter reported low *satisfaction with training* (n_P = 12, 29.3%).

4.5.3 Personality traits and job satisfaction of nurses working in psychiatric departments

The correlations between the personality traits and job satisfaction scales of the psychiatry group are displayed in Table 4.9. Those of the pilot study are provided in Appendix 14. In the main study, no significant correlations were found between the personality traits and job satisfaction of respondents working in psychiatric departments.

Table 4.9: Personality traits and job satisfaction of nurses working in psychiatric departments

			Job Satisfaction Subscales							
	Variables	**Spearman's Rank Correlation Coefficient**	***Personal Satisfaction***	***Satisfaction with Workload***	***Satisfaction with Professional Support***	***Satisfaction with Training***	***Satisfaction with Pay***	***Satisfaction with Prospects***	***Satisfaction with Standards of Care***	***Overall Satisfaction***
Personality Traits	***Psychic Trait Anxiety***	Correlation Coefficient	-0.055	0.084	-0.058	-0.063	-0.183	-0.161	-0.150	-0.063
		Sig. (2-tailed)	0.735	0.603	0.718	0.696	0.252	0.314	0.349	0.694
	Stress Susceptibility	Correlation Coefficient	-0.312 [8]	-0.112	0.002	0.061	-0.148	-0.095	0.039	0.004
		Sig. (2-tailed)	0.047	0.484	0.990	0.705	0.355	0.556	0.809	0.983
	Lack of Assertiveness	Correlation Coefficient	0.040	0.060	-0.128	-0.031	-0.081	-0.039	-0.118	-0.049
		Sig. (2-tailed)	0.806	0.710	0.426	0.849	0.614	0.811	0.461	0.760
	Impulsiveness	Correlation Coefficient	-0.137	0.210	0.059	-0.144	0.087	-0.026	0.073	0.065
		Sig. (2-tailed)	0.392	0.188	0.715	0.368	0.590	0.870	0.649	0.688
	Adventure-seeking	Correlation Coefficient	-0.262	0.139	0.097	-0.233	-0.082	-0.032	0.075	0.005
		Sig. (2-tailed)	0.098	0.388	0.545	0.143	0.610	0.844	0.642	0.978
	Detachment	Correlation Coefficient	-0.053	-0.155	0.066	0.121	0.078	-0.091	-0.218	-0.026
		Sig. (2-tailed)	0.743	0.334	0.681	0.450	0.626	0.571	0.172	0.869

[8] Correlation is significant at the 0.05 level (2-tailed).

4.5.4 Pilot study results of nurses working in psychiatric departments

Some correlations were found in the pilot study. *Psychic trait anxiety* was moderately negatively correlated with *satisfaction with workload* (Spearman's ρ = -0.538, p = 0.047), *satisfaction with professional support* (Spearman's ρ = -0.677, p = 0.008), *satisfaction with standards of care* (Spearman's ρ = -0.554, p = 0.040) and *overall satisfaction* (Spearman's ρ = -0.695, p = 0.006).

Stress susceptibility was moderately negatively correlated with *satisfaction with workload* (Spearman's ρ = -0.555, p = 0.039) and *satisfaction with pay* (Spearman's ρ = -0.669, p = 0.009).

Lack of assertiveness was moderately positively correlated with *personal satisfaction* (Spearman's ρ = 0.542, p = 0.045).

4.6 SUMMARY

Chapter 4 presented the data collected in this study. Biographical variables were analysed with descriptive statistics and displayed in tables and graphs. Data of the personality traits, job satisfaction, and the correlation between personality traits and job satisfaction of nurses working in emergency and psychiatric departments were also analysed and presented. Chapter 5 discusses the significance of these results.

CHAPTER 5
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter the results are interpreted in relation to the work environment and job requirements of emergency and psychiatric nursing. The strengths and weaknesses of the study are identified and recommendations for practice and further research are provided.

5.2 DISCUSSION

This study aimed to assess the personality traits and levels of job satisfaction of nurses working in emergency and psychiatric departments, and to determine whether there were any significant correlations between their personality traits and their levels of job satisfaction. Data analysis indicated that there were moderate to strong correlations between some personality traits and job satisfaction subscales of the emergency group of the main study, but none in the psychiatry group. The results of the emergency group are discussed first, followed by those of the psychiatry group.

5.2.1 Personality traits of nurses working in emergency departments

The established questionnaire, the *Swedish universities Scales of Personality* questionnaire, was used to assess the following personality traits of respondents: *psychic trait anxiety*, *stress susceptibility*, *lack of assertiveness*, *impulsiveness*, *adventure-seeking* and *detachment*. The *Swedish universities Scales of Personality* is based on trait theory, which aims to describe personality traits in an objective manner by examining the behaviour of individuals (Allport & Odbert, 1936:12-13). The Cronbach's α coefficients of the *Swedish universities Scales of Personality* for the emergency group sample were all above 0.60, except for *impulsiveness*, which was 0.58. The Cronbach's α coefficients for the *Measure of Job Satisfaction* for the emergency group sample were all above 0.70. The majority of respondents (77.5%) had chosen to work in the emergency department, so the results may be representative of individuals who are attracted to the emergency department environment.

5.2.1.1 Psychic Trait Anxiety

As an individual with a high level of *psychic trait anxiety* is more likely to worry and easily be hurt by stressful incidents (Gustavsson *et al*., 2000:219-220), an individual with a low level of *psychic trait anxiety* is less likely to worry and less likely to be hurt. Emergency departments are stressful working environments, and nurses working in emergency departments frequently witness traumatic events such as severe injuries, suffering, suicide and death (Adriaenssens *et al*., 2015:649), and they may even be verbally and physically abused by aggressive patients (Adriaenssens, 2014:2). Therefore individuals who are not easily distressed and upset by such incidences may be more suited to working in the emergency environment. The majority of respondents working in emergency departments reported low levels of *psychic trait anxiety* (72.5%), so it may indicate that the majority of them are well suited to the stressful working environment of the emergency department. The findings of this study may correspond with those of Kennedy (2014:107-108), who found that nurses employed in the emergency department of a large Australian hospital scored higher in the e*xtraversion* facet *positive emotions*.

5.2.1.2 Stress Susceptibility

An individual with high *stress susceptibility* is defined as someone who experiences greater pressure when they are required to complete a task, and as someone who tires easily under pressure (Gustavsson *et al.,* 2000:219-220), therefore an individual with low *stress susceptibility* does not experience great pressure when they have to complete a task, and they also do not tire under pressure. High workloads, large volumes of patients requiring urgent care, and rapid changes in the pace of work result in emergency departments being very stressful work environments (Crouch *et al*., 2016:2; Hodkinson & Wallis, 2009:635). Most respondents working in emergency departments reported low levels of *stress susceptibility* (80%), indicating they may not be greatly affected by the pressure, so they may be well suited to their working environment. The results for *stress susceptibility* in this study may be similar to those found by Kennedy (2014:107-108), who found that the emergency nurses in her study scored high in the e*xtraversion* facet *activity*. Such individuals tend to lead fast-paced lives, and would cope well with the busy, noisy and time-pressured environment of emergency departments.

5.2.1.3 Lack of Assertiveness

An individual who lacks assertiveness is not bold and confident during social interactions (Gustavsson *et al.,* 2000:219-220), and an individual with a low level of *lack of assertiveness* is bold and confident when interacting with others. Being able to communicate well with patients is a crucial skill for nurses working in emergency departments, who are constantly exposed to a large variety of patients from diverse cultures and backgrounds. Nurses in emergency departments who are able to remain non-judgemental, form rapport and empathise with patients and their families, will be better able to gain vital information regarding their conditions, and also better be able to care for them (Kennedy, 2014:108-109). The majority of study respondents working in emergency departments reported low levels of *lack of assertiveness* (82.5%), so their self-assurance when communicating may fit in well with their noisy, multi-cultural working environment. These results may correspond to Kennedy's results (2014:108-109), who also found that respondents working in emergency departments scored higher than the general population with regards to being broad-minded, and they were more open to the feelings, actions and values of others.

5.2.1.4 Impulsiveness

Impulsive individuals have a tendency to act spontaneously and not to consider the outcomes of their actions (Gustavsson *et al.,* 2000:219-220). Alternatively, individuals with low *impulsiveness* prefer to work within a framework and are committed to their work (Toegel & Barsoux, 2012:54). As emergency departments have such a variety of patients, it requires nurses who are dedicated to their work, able to make carefully calculated decisions regarding patient care, and who remain up to date with their competencies (Kennedy, 2014:110-111). As individuals with low *impulsiveness* prefer working within a framework, they may be more inclined to keep their competencies up to date.

The Cronbach's α coefficients for *impulsiveness* of the emergency group sample was low (α = 0.58), so the result of this scale should be interpreted with caution. Two thirds of respondents reported low levels of *impulsiveness* (65.5%), so being committed to their work and being able to make informed decisions may allow them to provide safe patient care. A study by Kennedy reported similar results, as her study found that emergency nurses scored higher in the *conscientiousness* facet *competence*, and that

such individuals are hard-working, able to make informed decisions, and tend to engage in continuing education (Kennedy, 2014:110-111).

5.2.1.5 Adventure-seeking

An individual with high levels of *adventure-seeking* has an increased need for change and activity (Gustavsson *et al.,* 2000:219-220). Nurses working in emergency departments regularly have to manage a wide variety of clinical presentations and they often have a high workload (Kennedy, 2014:107-108), therefore nurses with high levels of *adventure-seeking* may be attracted to this working environment. Approximately two thirds of respondents working in emergency departments reported high levels of *adventure-seeking* (65%), which may indicate a good fit with their environment. An Australian study of emergency nurses had similar results and found that respondents scored higher in the e*xtraversion* facet *excitement seeking*, and enjoy new and exciting challenges (Kennedy, 2014:6, 107-108).

5.2.1.6 Detachment

Individuals with high *detachment* scores tend to be emotionally withdrawn, and do not seek out relationships with others (Gustavsson *et al*., 2000:219-220). Conversely, individuals with low *detachment* scores tend to be friendly and social. Nurses who work in emergency departments are often required to communicate with new people, and to quickly build a level of trust with them in order to determine what care they require (Kennedy, 2014:107). Just over two thirds of respondents reported low levels of *detachment* (65%), and their social and friendly natures would be well suited to emergency departments. Kennedy also found that nurses working in emergency departments scored higher in the e*xtraversion* facet *warmth*, and that they relate well to strangers. They were also found to be able to empathise with others (Kennedy, 2014:107-109).

5.2.2 Job satisfaction of nurses working in emergency departments

In line with Herzberg's two-factor theory, the *Measure of Job Satisfaction* questionnaire examines motivation factors which are related to the work itself, and hygiene factors which are related to working conditions (Norton, 2008:52). The *Measure of Job Satisfaction* examines the motivation factor *personal satisfaction*, and the hygiene factors *satisfaction with workload*, *satisfaction with professional support*,

satisfaction with training, *satisfaction with pay*, *satisfaction with prospects* and *satisfaction with standards of care*. It also examines *overall satisfaction*, which is a combination if the motivation and hygiene factors.

5.2.2.1 Personal Satisfaction

Personal satisfaction is related to how interesting, rewarding and challenging employees find their jobs (Munyewende *et al*., 2014:2). Emergency departments manage a wide variety of clinical presentations, diseases and conditions. Nurses working in emergency departments may face high workloads and often manage patients requiring very urgent or immediate care (Crouch *et al*., 2016:2; Hodkinson & Wallis, 2009:635). Nearly three quarters of respondents working in emergency departments reported high *personal satisfaction*, and only 15% reported low satisfaction. Therefore, the majority of respondents employed in emergency departments seem to find fulfilment working in the emergency environment. The results of this study are comparable to those of a study conducted in the United States of America (USA), which found that 79% of male nurses and 73% of female nurses working in emergency departments were satisfied with the work itself (Helbing, 2017:106). A recent study by Coetzee *et al*. (2013:167) found that 45.8% of South African nurses working in medical and surgical wards reported being burned out, but did not report on the burnout facet *personal accomplishment* separately. As low *personal accomplishment* is considered to be an aspect of being burned out, the results of this study may indicate that nurses working in emergency departments in the Northern and Southern suburbs of Cape Town experience a greater sense of *personal satisfaction* than general nurses in South Africa.

5.2.2.2 Satisfaction with Workload

Satisfaction with workload deals with how much work an employee is allocated, how much time they have to complete the work, and staffing levels (Munyewende *et al*., 2014:2). Emergency staff often face high workloads (Hodkinson & Wallis, 2009:635), and a study done at one public South African hospital found that their bed occupancy rate was never below 100% for the duration of the four-week study (Ahiable *et al.*, 2017:71). Only about a quarter (27.5%) of respondents working in emergency departments reported being dissatisfied with their workload. The remaining nurses reported either neutral (32.5%) or high (40%) satisfaction with their workload.

Therefore, despite the high workload, most nurses working in emergency departments were not dissatisfied with it. The high workload satisfaction results of the emergency group sample of this study may be comparable to the results of a study conducted in emergency departments in the USA. Approximately a third (36%) of male nurses and a third of female nurses (31%) reported being satisfied with their working conditions (Helbing, 2017:106). The study did not specify which working conditions, but since working conditions may include workload, a speculative comparison may be possible.

5.2.2.3 Satisfaction with Professional Support

Satisfaction with professional support assesses the sufficiency of managerial support, opportunities to voice concerns, feeling valued, and teamwork (Munyewende *et al*., 2014:2). Nearly two thirds (65%) of nurses working in emergency departments reported high *satisfaction with professional support*, and only 15% reported low satisfaction. In a study of emergency nurses in the USA, only 43% of males and 36% of females were satisfied with their company's policies, and only 43% of males and 36% of females reported being satisfied that their achievements were being recognised. However, 93% of males and 89% of females reported being satisfied with their work relationships (Helbing, 2017:106). A recent study reported that 44.9% of general South African nurses are not confident that their management will resolve problems related to patient care (Coetzee *et al*., 2013:167). The results of this study may indicate that nurses working in emergency departments in the Northern and Southern suburbs of Cape Town are much more satisfied with their management compared to South African nurses in general.

5.2.2.4 Satisfaction with Training

Satisfaction with training relates to whether the employer provides in-service training or opportunities for further training (Munyewende *et al*., 2014:3). In order to provide high quality patient care, nurses working in emergency departments must be able to manage a variety of diseases and conditions (Crouch *et al*., 2016:2), and are required to be well trained and to keep their skills up to date (Kennedy, 2014:110-111). Nearly half of respondents working in emergency departments reported high *satisfaction with training*. Approximately a third (32.5%) reported neutral satisfaction, and 20% were dissatisfied with the amount of training that they receive. Since the majority of respondents were either satisfied or neutral regarding the amount of training they

receive, participating hospitals may be prioritising staff training and quality patient care.

5.2.2.5 Satisfaction with Pay

Satisfaction with pay is related to the perceived adequacy of employees' salaries (Munyewende *et al*., 2014:3). Half of respondents (50%) working in emergency departments reported low *satisfaction with pay*. Approximately a third (32.5%) were satisfied. The findings of a USA study reported more satisfaction with salaries, with 50% of male emergency nurses and 42% of female emergency nurses being satisfied with their salaries (Helbing, 2017:106). A study conducted at a public hospital in the rural part of the North-West Province of South Africa found that the majority of registered nurses (79.3%), and enrolled nurses and enrolled nursing assistants (86.7%) were dissatisfied with their salaries (Khunou & Davhana-Maselesele, 2016:1). A larger ratio of respondents working in emergency departments from this study are satisfied with their salaries compared to the respondents of the North-West study.

5.2.2.6 Satisfaction with Prospects

Satisfaction with prospects assesses employees' perceived outlook for continued employment and promotion (Munyewende *et al*., 2014:3). Nearly two thirds (62.5%) of respondents working in emergency departments reported high *satisfaction with prospects*. Only 10% reported low satisfaction. A study conducted on general nurses in South Africa reported that 54.4% of respondents intended to leave their current employer (Coetzee *et al*., 2013:167). A larger proportion of respondents in this study were optimistic regarding their current employer than general nurses that participated in the study conducted by Coetzee *et al*.

5.2.2.7 Satisfaction with Standards of Care

Satisfaction with standards of care relates to whether employees are satisfied with the quality of patient care provided by their department (Munyewende *et al*., 2014:3). Nurses who work in specialised areas such as emergency nursing often undertake continuing education (Kennedy, 2014:110-111), which may enable them to provide a higher level of patient care. The majority of respondents working in emergency departments reported high *satisfaction with standards of care* (72.5%). Only 10% were dissatisfied. A national study in South Africa found that 20.7% of general nurses considered their ward to be of poor or fair quality (Coetzee *et al*., 2013:167). Twice as

many general nurse respondents were dissatisfied with the quality of their departments compared to the respondents in this study.

5.2.2.8 Overall Satisfaction

Overall satisfaction was calculated by adding together the results of all the questions on the *Measure of Job Satisfaction*, and by dividing them by the number of questions. This provided an overview of the general job satisfaction of respondents. Just under half (47.5%) of respondents working in emergency departments experienced high *overall satisfaction*, 37.5% experienced neutral satisfaction, and 15% experienced low satisfaction. More emergency nurses responding to a study in the USA reported *overall satisfaction* with their jobs (males 71%, females 72%) (Helbing, 2017:106). Medical and surgical nurses who participated in another South African study were twice as likely (32.3%) to be dissatisfied with their jobs (Coetzee *et al*., 2013:167), compared to the respondents in this study (15%).

5.2.3 Correlation between personality traits and job satisfaction of nurses working in emergency departments

Correlations were calculated with Spearman's rank correlation coefficient (ρ). Moderate to strong negative correlations were found between *psychic trait anxiety* and *stress susceptibility* and many of the job satisfaction subscales.

Weak negative correlations were found between *impulsiveness*, *detachment* and many of the job satisfaction subscales. As weak correlations were not considered to have any clinical importance in this study, conclusions cannot be drawn from them and they are not included in the discussion below.

5.2.3.1 Psychic Trait Anxiety and job satisfaction scales of nurses working in emergency departments

The results of this study indicate that the respondents working in emergency departments in the Northern and Southern suburbs of Cape Town had a moderate negative correlation between *psychic trait anxiety* and satisfaction with their workload, professional support from management and their colleagues, the training provided by their hospitals, and with their jobs in general. As an emergency department is a high-pressured work environment, it is to be expected that nurses who are less sensitive would be comfortable working there. *Psychic trait anxiety* may be comparable to

neuroticism, *type D personality*, and *trait-negative affect*, as discussed in section 2.7, thus results of this study demonstrate some similarity to other studies. Geuens *et al.* (2017:4629) and Ang *et al*. (2016:5) found that the nurses in their studies who had high *neuroticism* scores also had low levels of *personal accomplishment*. Kim *et al*. (2017:908) observed a negative relationship between nurses with *type D personality* and job satisfaction, and Geuens *et al*. (2015a:80, 84) found a negative correlation between *type D personality* and *personal accomplishment*.

5.2.3.2 Stress Susceptibility and job satisfaction scales of nurses working in emergency departments

Respondents in this study working in emergency departments showed a strong negative correlation between *stress susceptibility* and the amount of training they receive and *overall satisfaction* with their jobs. Respondents also showed a moderate negative correlation between *stress susceptibility* and the amount of *personal satisfaction* they get from their jobs, satisfaction with their workloads, support from management and colleagues, and their salaries. Emergency departments often have a high pace of work, so nurses who are able to manage in busy work environments may be more suited to work there.

Individuals with low *stress susceptibility* are typically able to work under great pressure without becoming tired (Gustavsson *et al.,* 2000:219-220), which may be comparable to the e*xtraversion* facet *activity,* which is a tendency of extraverted individuals to display active and energetic behaviour (Gomez-Cantorna *et al*., 2015:342). Ang *et al*. (2016:4, 5) observed that nurses with higher e*xtraversion* scores tended to report higher levels of *personal accomplishment*. However, e*xtraversion* also includes other facets such as *assertiveness* and *positive emotions* (Gomez-Cantorna *et al*., 2015:342), so e*xtraversion* may not be a direct comparison with *stress susceptibility*. *Resilience* is the ability to tolerate difficult circumstances and to persevere (Merriam-Webster Dictionary, 2017), which may be comparable to low *stress susceptibility*. Mealer *et al*. (2012:295-296) noted that the trait *resilience* in nurses was positively correlated with the burnout dimension *personal accomplishment*, which is similar to the findings of this study.

5.2.4 Personality traits of nurses working in psychiatric departments

The results for the psychiatry group is discussed next. Most of the Cronbach's α coefficients for the psychiatry group were within acceptable ranges, with the exception of the *stress susceptibility* (α = 0.48), *lack of assertiveness* (α = 0.50), and *detachment* (α = 0.24) subscales for the *Swedish universities Scales of Personality* questionnaire, and the *satisfaction with training* (α = 0.60) and *satisfaction with prospects* (α = 0.68) subscales for the *Measure of Job Satisfaction* questionnaire. This study's results in respect to these scales should be interpreted with caution. Furthermore, the majority of respondents working in psychiatric departments had not chosen to work there (78%), so the personality traits of respondents may not reflect those of nurses who may be attracted to working in psychiatry. The researcher was unable to find any recent studies conducted on the personality traits of nurses working in psychiatry, so comparisons were not possible. Therefore, the personality traits of respondents working in psychiatric departments are only discussed in relation to their work environments.

5.2.4.1 Psychic Trait Anxiety

Individuals with high *psychic trait anxiety* tend to worry easily and are quickly distressed by stressful situations (Gustavsson *et al*., 2000:219-220). Individuals with low *psychic trait anxiety* are less likely to worry and less likely to be distressed. Psychiatric departments may be stressful working environments. A recent study in South Africa reported that nurses employed in psychiatric departments are often exposed to verbal and non-verbal aggression (Delport, Poggenpoel & Myburgh, 2018:6), and 50% of respondents in a study conducted at a psychiatric hospital in Cape Town felt that they were unable to perform their tasks at work without endangering their own safety (Kovane, 2015:57). Nurses experiencing high levels of stress when working in psychiatric departments may be a global issue, as Registered Nurses working in psychiatric departments in the USA have the highest turnover rates of all nursing fields (NSI Nursing Solutions, Inc., 2016:10). Approximately half of the respondents in this study working in psychiatric departments reported low *psychic trait anxiety* (51.2%), with the other half reporting high *psychic trait anxiety* (48.8%). As psychiatric departments manage patients who may be verbally and physically aggressive, nurses with low *psychic trait anxiety* may be more suited to working in this type of setting.

5.2.4.2 Stress Susceptibility

Individuals with high levels of *stress susceptibility* experience greater pressure when they are expected to finish tasks, and they tire easily under pressure (Gustavsson *et al.,* 2000:219-220). Individuals with low levels of *stress susceptibility* do not experience great pressure when expected to finish tasks, and also do not tire easily under pressure.

The Cronbach's α coefficients for *stress susceptibility* of the psychiatry group was low (α = 0.48), so the result of this scale should be interpreted with caution. A larger proportion of respondents working in psychiatric departments reported low *stress susceptibility* (68.3%), compared to those reporting high *stress susceptibility* (31.7%). Nurses working in psychiatric departments may be required to respond promptly to a variety of situations (Heslop *et al*., 2016:430), so individuals with lower levels of *stress susceptibility* may be more adapted to such settings.

5.2.4.3 Lack of Assertiveness

Individuals who lack assertiveness are not bold and confident when dealing with other people (Gustavsson *et al.,* 2000:219-220), and assertive individuals are bold and confident. Because patients with mental disorders may pose a threat to themselves or to others, nurses working in psychiatry may need to hospitalise patients against their will, apply restraints, or isolate patients (Eren, 2014:369). They may also need to establish and maintain rules with psychiatric patients, and carefully evaluate and empower them to take responsibility for their actions as their mental health improves (Delaney & Johnson, 2014:134). Considering these factors, nurses working in psychiatric departments who are assertive may be better suited to this aspect of psychiatric nursing care. Two thirds (65.9%) of respondents working in psychiatric departments reported low *lack of assertiveness*. However, the Cronbach's α coefficients for *lack of assertiveness* of the psychiatry group was low (α = 0.50), so the results of this scale should be interpreted with caution.

5.2.4.4 Impulsiveness

Individuals with high levels of *impulsiveness* tend to act spontaneously without considering the results of their actions (Gustavsson *et al.,* 2000:219-220). Individuals with low levels of *impulsiveness* prefer structure and are devoted to their work (Toegel & Barsoux, 2012:54). Nurses working in psychiatric departments need to maintain

order among patients to ensure that patients and those around them are safe, but also to spontaneously engage with patients during the day in order to encourage and empower them (Delaney & Johnson, 2014:134). More than two thirds (68.3%) of the respondents working in psychiatric departments that participated in this study reported low *impulsiveness*. Whereas *impulsiveness* may be inappropriate in psychiatric departments when the results of one's actions have not been considered, spontaneously taking advantage of opportunities throughout the day to engage with patients may prove beneficial to patients.

5.2.4.5 Adventure-seeking

Individuals with high *adventure-seeking* have a greater need for change and activity compared to others (Gustavsson *et al.,* 2000:219-220). Over half of psychiatric admissions in South Africa are readmissions, and nurses working in psychiatric departments may see the same patients repeatedly (Thomas *et al*., 2015:8), and they may also see patients presenting with certain diagnoses more often (Herman *et al*., 2009:340). On the other hand, as discussed in section 2.7.1, the admission of aggressive psychiatric patients may also present unexpected and risky challenges. The majority of respondents (61%) reported high *adventure-seeking*, though it is not apparent whether the types of challenges provided in a psychiatric setting would be satisfying to individuals with high *adventure-seeking*.

5.2.4.6 Detachment

Individuals with high levels of *detachment* tend to remain emotionally distant from others, and prefer being alone (Gustavsson *et al*., 2000:219-220). The basis of psychiatric nursing is to build emotionally supportive and therapeutic relationships with patients (Redknap *et al*., 2015:262; Gunasekara *et al*., 2014:101). Nurses working with psychiatric patients also need to consult other members of the healthcare team, and provide advice and support to family members (Heslop *et al*., 2016:426). Therefore, individuals with low levels of *detachment* may be more suited to working in psychiatric departments.

The Cronbach's α coefficients for *detachment* of the psychiatry group was very low (α = 0.24), so the result of this scale should be interpreted with caution. Slightly more respondents reported low levels of *detachment* (58.5%), compared to high levels of *detachment* (41.5%). As high levels of *detachment* are associated with maintaining an

emotional distance from others, low levels would imply closeness and empathy. A Jordanian study conducted on nurses working in psychiatric departments reported that participants had high levels of caring and empathy (Alhadidi, Abdalrahim & Al-Hussami, 2016:337). However, due to the low Cronbach's α coefficients for this subscale, it is not possible to make feasible comparisons.

5.2.5 Job satisfaction of nurses working in psychiatric departments

The job satisfaction of respondents working in psychiatric departments was assessed with the *Measure of Job Satisfaction* questionnaire.

5.2.5.1 Personal Satisfaction

Personal satisfaction deals with the amount of interest, reward and challenge a job provides to an individual (Munyewende *et al*., 2014:2). Nurses working in psychiatric departments monitor clients' psychopathology, build therapeutic relationships with patients, and provide support to patients' family members (Heslop *et al*., 2016:426; Redknap *et al*., 2015:262). Two thirds of respondents working in psychiatric departments reported high *personal satisfaction* with their jobs (65.9%), and only 14.6% reported low *personal satisfaction*, indicating that the majority of respondents from the psychiatry group may be well suited to their work. The results of this study are very similar to those found by Kovane (2015: 66), who investigated nurses employed at a psychiatric hospital in Cape Town. Nearly two thirds (62%) of respondents in his study were satisfied with the content of their work, as they felt it was interesting, challenging, or corresponded with their aptitudes. A national study of South African medical and surgical nurses found that just under half of them (45.8%) reported being burned out. Although the study did not specify this, since low *personal accomplishment* is an aspect of burnout, these nurses may therefore also experience less *personal accomplishment* with their work (Coetzee *et al*., 2013:167). Hence, medical and surgical nurses were three times more likely to report being burned out, than respondents who experienced low *personal satisfaction* in this research study.

5.2.5.2 Satisfaction with Workload

Satisfaction with workload refers to the amount of work and time allocated to employees, and the number of personnel that share the work (Munyewende *et al*., 2014:2). The researcher was unable to find data on bed occupancy rates or nursing

staff to patient ratios in psychiatric departments in South Africa Just over half of respondents working in psychiatric departments reported high *satisfaction with workload* (58.5%), and 31.7% reported neutral satisfaction. In contrast, another South African study observed a high level of absenteeism in nurses working in a Western Cape psychiatric hospital; 69% of nurses reported having been absent from work due to high patient to staff ratios, indicating high workloads. However, only 24% of them felt that they were not able to get their assigned work completed in time (Kovane, 2015: 64). Kovane's results seem contradictory, and may require further investigation.

5.2.5.3 Satisfaction with Professional Support

Satisfaction with professional support relates to the amount of support available from management, whether employees may discuss difficulties, and adequacy of teamwork and recognition (Munyewende *et al*., 2014:2). The majority of respondents in this study working in psychiatric departments reported either high (46.3%) or neutral (41.5%) *satisfaction with professional support*. These findings are contrary to those of another study conducted in Cape Town. Nearly a third of respondents at a psychiatric hospital (60%) have been absent due to dissatisfaction with management, and approximately one in five respondents (22%) indicated that they had been absent due to difficulties with interpersonal relations at work (Kovane, 2015:68, 71). Coetzee *et al*. (2013:167) reported that 44.9% of medical and surgical nurses do not have confidence in their hospital management. Therefore, a larger ratio of respondents in this study were satisfied with the management of their hospitals than nurses working in other South African settings.

5.2.5.4 Satisfaction with Training

Satisfaction with training assesses the perceived adequacy of in-service training and whether employers support further training (Munyewende *et al*., 2014:3). The Cronbach's α coefficients for *satisfaction with training* of the psychiatry group was low (α = 0.60), so the result of this scale should be interpreted with caution. Approximately a quarter of respondents working in psychiatric departments reported high *satisfaction with training* (24.4%), and approximately a quarter reported low *satisfaction with training* (29.3%). Compared to the results of this study, a larger ratio of respondents in a study conducted at a public psychiatric hospital in Cape Town reported dissatisfaction with the training they receive. Kovane (2015:61) found that 56% of

nurses in his study reported that they had been absent in the past due to insufficient training, 51% had been absent because their abilities and skills are not developed and extended at work, and 19% had been absent because they felt they had insufficient knowledge and information to perform their work.

5.2.5.5 Satisfaction with Pay

Satisfaction with pay assesses employees' satisfaction with their salaries (Munyewende *et al*., 2014:3). Just over half of the respondents reported low *satisfaction with pay* (51.2%), 19.5% reported neutral satisfaction, and 29.3% reported high satisfaction. A similar percentage of nurses at a psychiatric hospital in Cape Town (54%) stated that their salaries were not enough to motivate them to always work hard, and the majority (69%) reported that they had been absent due to dissatisfaction with an aspect of their remuneration package (Kovane, 2015: 67). Another study conducted at a public hospital in the rural part of the North-West Province of South Africa reported even more dissatisfaction, as 79.3% of registered nurses and 86.7% of enrolled nurses and enrolled nursing assistants were dissatisfied with their salaries (Khunou & Davhana-Maselesele, 2016:1).

5.2.5.6 Satisfaction with Prospects

Satisfaction with prospects is related to whether employees foresee continued employment with their current employers, and their chances for promotion (Munyewende *et al*., 2014:3). Most nurses working in psychiatric departments reported either high *satisfaction with prospects* (48.8%), or neutral satisfaction (41.5%). These findings are contrary to two other South African studies. Nearly half (46%) of respondents in Kovane's study reported that lack of promotion contributed to their absenteeism from work (Kovane, 2015: 62), and a national study involving medical and surgical nurses reported that 54.4% of respondents intended to seek alternative employment (Coetzee *et al*., 2013:167).

5.2.5.7 Satisfaction with Standards of Care

Satisfaction with standards of care assesses how employees rate the quality of care provided by their department (Munyewende *et al*., 2014:3). Nearly three quarters (73.2%) of respondents working in psychiatric departments reported high *satisfaction with standards of care*, and only 7.3% reported low *satisfaction with standards of care*. Medical and surgical nurses in a national South African study were three times more

likely (20.7%) to consider their wards to be of poor or fair quality (Coetzee *et al*., 2013:167).

5.2.5.8 Overall Satisfaction

In order to determine the *overall satisfaction* of respondents working in psychiatric departments with their jobs, the results of all their answers were added together, and divided by the number of questions. Just over half of respondents had high *overall satisfaction* levels (51.2%), and only 9.8% had low *overall satisfaction*. General nurses who participated in a national South African study were more than three times as likely (32.3%) to be dissatisfied with their jobs (Coetzee *et al*., 2013:167), compared to the respondents in this study.

5.2.6 Correlation between personality traits and job satisfaction of nurses working in psychiatric departments

Correlations were calculated with Spearman's rank correlation coefficient. The main study did not show any correlations. This may indicate that nurses with different kinds of personality traits may be satisfied working in psychiatric departments.

5.3 STRENGTHS AND LIMITATIONS OF THE STUDY

The critical shortage and high turnover rates of nurses necessitates an examination of contributing factors. This study was the first in South Africa to explore the correlation between the personality traits and levels of job satisfaction of nurses.

Established questionnaires were used, and the two study samples were large enough to produce statistically significant results. However, the study consisted of a small sample size due to the restraints of a research degree, and a low response rate, especially among nurses working in emergency departments. A larger sample from a larger population would be necessary to provide a more accurate reflection of the personality traits and levels of job satisfaction of all nurses working in emergency and psychiatric departments across South Africa.

The inclusion of seven hospitals from different sectors and different private hospital groups increased representativeness. However, no nurses employed in psychiatric departments from the private sector participated in this study, and a large number of Enrolled Nursing Assistants working in psychiatric departments participated,

compared to the other nursing categories, which may also have influenced results. Furthermore, hospitals which contained both an emergency and psychiatric department were given preference during sampling, which may have influenced the results.

Dissatisfied individuals may be more inclined to fill in a questionnaire about job satisfaction than individuals who were satisfied, so job satisfaction scores may not be representative of the target population. Furthermore, self-report questionnaires are subject to bias. Respondents may not have answered truthfully, but may have responded according to what they consider to be the more socially acceptable answer. The researcher attempted to decrease the likelihood of such bias by reminding nurses that their responses will remain anonymous, by emphasising the need for honest answers when distributing the questionnaires, and by not being present when nurses answered the questionnaires.

Many isiXhosa speakers preferred answering an English questionnaire, even though an isiXhosa one was also offered to them. They stated that they were better able to understand written English compared to written isiXhosa. Since they were not answering the questionnaire in their first language, they may have misunderstood some of the expressions in the English questionnaire, which may have affected their answers. However, Cronbach's α coefficient values were examined for each language separately, and did not show significant differences between languages.

The *Measure of Job Satisfaction* should be analysed according to nursing category, but the number of nurses participating in this study was too small to analyse their categories separately.

5.4 CONCLUSION

The following null hypotheses for each specialty and personality trait were tested in this study:

1. There is no correlation between *psychic trait anxiety* and job satisfaction among nurses working in emergency departments.
2. There is no correlation between *stress susceptibility* and job satisfaction among nurses working in emergency departments.

3. There is no correlation between *lack of assertiveness* and job satisfaction among nurses working in emergency departments.
4. There is no correlation between *impulsiveness* and job satisfaction among nurses working in emergency departments.
5. There is no correlation between *adventure-seeking* and job satisfaction among nurses working in emergency departments.
6. There is no correlation between *detachment* and job satisfaction among nurses working in emergency departments.
7. There is no correlation between *psychic trait anxiety* and job satisfaction among nurses working in psychiatric departments.
8. There is no correlation between *stress susceptibility* and job satisfaction among nurses working in psychiatric departments.
9. There is no correlation between *lack of assertiveness* and job satisfaction among nurses working in psychiatric departments.
10. There is no correlation between *impulsiveness* and job satisfaction among nurses working in psychiatric departments.
11. There is no correlation between *adventure-seeking* and job satisfaction among nurses working in psychiatric departments.
12. There is no correlation between *detachment* and job satisfaction among nurses working in psychiatric departments.

Alternative hypotheses for null hypotheses 1, 2, 4 and 6 were accepted, since statistically significant negative correlations were found between *psychic trait anxiety*, *stress susceptibility, impulsiveness* and *detachment* and job satisfaction among nurses working in emergency departments. However, the correlations between *impulsiveness* and *detachment* and job satisfaction were weak, and not considered clinically significant. The majority (77.5%) of nurses working in emergency departments had chosen to work there, and 85% of them reported either high or neutral overall satisfaction. So, it would appear as though nurses working in emergency departments choose to work in a department that is suited to their personality traits.

5.5 RECOMMENDATIONS

It is recommended that future research should focus on defined nursing specialties, as opposed to the nursing field in general, and determine which personality traits are best suited to which specialties. This research may assist with the recruitment and retention of nurses and decrease the loss of experienced and trained nurses from specialty fields. Personality assessment and counselling may be beneficial to prospective nursing students prior to commencement of training, and to graduating nurses before entering the workplace. More in-depth knowledge about their personality traits may increase the likelihood that they will choose a field that would be most appropriate for them, and hence improve retention rates.

Most respondents working in emergency departments had chosen to work there and reported being satisfied with their jobs. When recruiting nurses, hospitals may determine whether nurse applicants possess the personality traits of nurses working in emergency departments reported in this study, and guide those nurses to consider working in the emergency department. Most respondents working in psychiatric departments had not chosen to work there, but most reported being satisfied with their jobs. Therefore, hospitals may benefit from employing recruitment strategies to encourage nurses to work in psychiatric departments. It is not recommended to use personality assessments to prevent people from entering a certain nursing specialty, but should only be used to identify nurses who would be best suited to a specific specialty.

5.6 DISSEMINATION

A presentation of the study will be done at the annual Nursing and Midwifery Research Day held at Stellenbosch University's Faculty of Medicine and Health Sciences in 2019, and an article summarising the study will be submitted to a peer-reviewed journal. The results of this study will be forwarded to one of the authors of the *Swedish universities Scales of Personality*, at his request. The results of this study will also be made publicly available on the following website: http://research.cluedapp.co.za. Respondents were informed that they would be able to access the results on this website at the conclusion of the study.

5.7 CONCLUSION

The majority of nurses working in emergency departments who participated in this study had chosen to work in the emergency department, and most of them had low *psychic trait anxiety*, low *stress susceptibility,* low *lack of assertiveness,* low *impulsiveness,* high *adventure-seeking* and low *detachment.* Most of them were either neutral or satisfied with most aspects of their jobs, with the exception of *satisfaction with pay*. Moderate to strong correlations were found between *psychic trait anxiety*, *stress susceptibility* and job satisfaction subscales among nurses working in emergency departments.

The majority of nurses working in psychiatric departments who participated in this study had not chosen to work in the psychiatric department, and most of them had low *stress susceptibility,* low *lack of assertiveness,* low *impulsiveness,* and high *adventure-seeking.* Most of them were either neutral or satisfied with most aspects of their jobs, with the exception of *satisfaction with pay*. No correlations were found between *stress susceptibility* and job satisfaction subscales among nurses working in psychiatric departments. This study has demonstrated that there is a need for further research into this aspect of nursing as the improvement of 'fit' between nurse and specialty may affect not only retention, but also contribute to the understanding of personality and job satisfaction.

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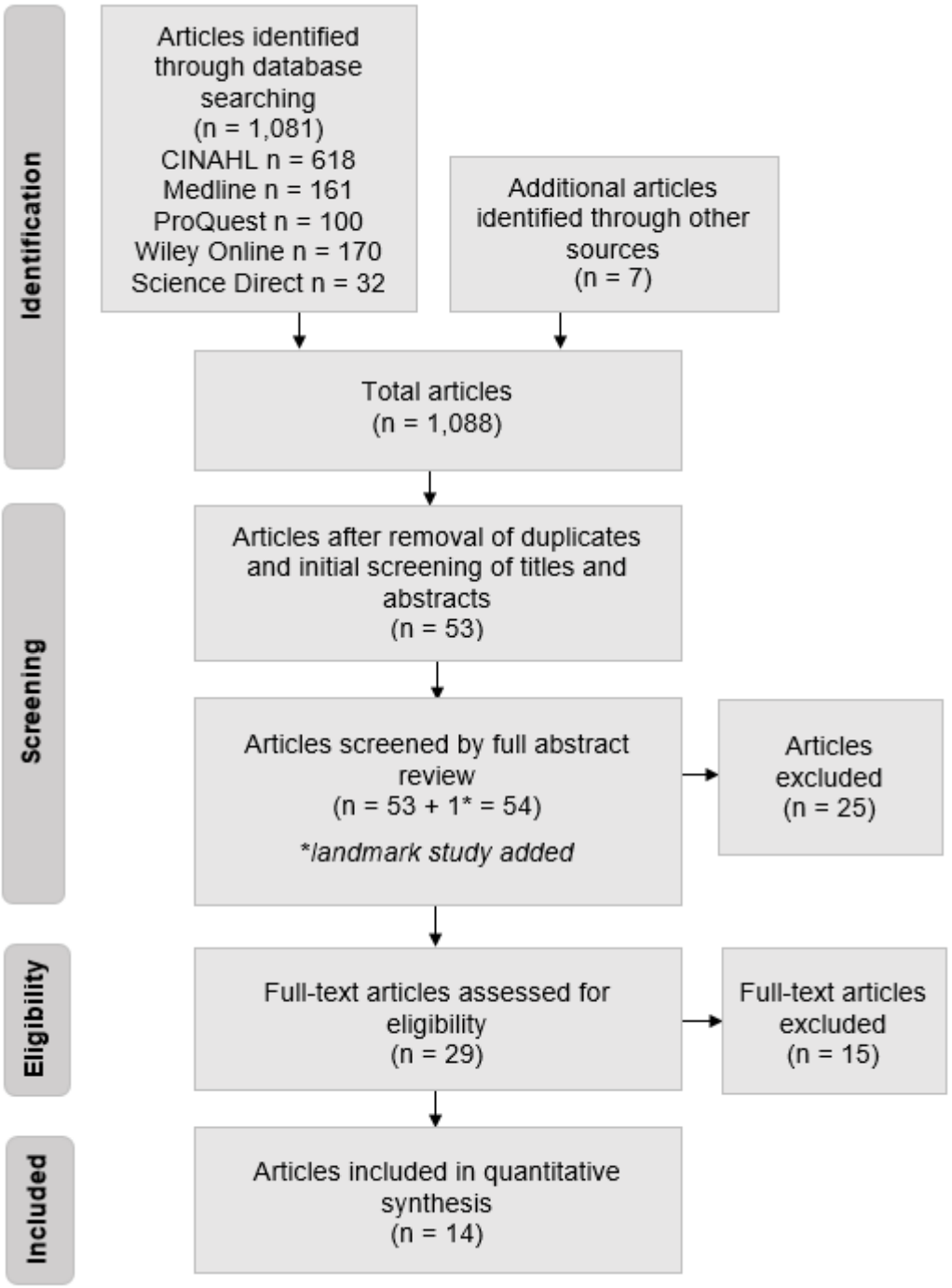
APPENDICES

Appendix 1: Modified PRISMA flow diagram



Appendix 2: Critical appraisal tool for literature review

Critical Appraisal Tool for Literature Review

SECTION A

Inclusion criteria:

- Study sample includes qualified nurses.
- Study examines the relationship between personality and job satisfaction and/or personality and burnout.

SECTION B

The following items have been adapted from the critical appraisal guidelines provided in Burns & Grove (2011:423-427).

Research problem and purpose

- Is the problem relevant to nursing?
- Is the aim of the study clear?

Literature review

- Does the literature review include relevant studies and theories?
- Does the literature review provide a rationale and direction for the study?

Study framework

- Is the framework clear and linked to the study purpose, variables and findings?

Research objectives, questions or hypotheses

- Do research objectives, questions, or hypotheses direct the study?
- Are they logically linked to the study purpose, framework, design and results?

Variables

- Are the major variables identified and defined?
- Do the variables reflect the concepts identified in the framework?

Design

- Does it examine all the objectives, questions, hypotheses and the study purpose? ☐
- What are the strengths and weaknesses of the design? ☐

Sample, population and setting

- What are the potential biases in the sampling method? ☐
- Were the inclusion and exclusion criteria appropriate? ☐
- Was the sampling method appropriate? ☐
- Was the sample size sufficient? ☐
- Was the sample size determined by a power analysis? ☐
- What was the acceptance/attrition rate? ☐

Measurements

- Are the measurement methods clearly described? ☐
- If the instrument was developed for the study, is the instrument development process described? ☐
- Is the reliability and validity of instruments within acceptable levels? ☐

Data analysis

- Do data analyses address each objective, question, or hypothesis? ☐
- Are data analysis procedures appropriate to the type of data collected? ☐
- Are p-values appropriate? ☐

Interpretation of findings

- Are significant and nonsignificant findings explained? ☐
- Were the statistically significant findings also examined for clinical significance? ☐
- Did the researcher identify important study limitations? ☐
- Are the conclusions based on statistically and clinically significant results? ☐
- Is the generalisation of the study findings appropriate based on the findings of this study and previous research? ☐
- Are the implications for practice consistent with study conclusions? ☐
- Are relevant ideas provided for future research? ☐

Appendix 3: Summary of the findings of literature review articles

Table A1: Literature review findings

	Authors (year)	Sample (setting)	Instruments	Findings
1.	**Geuens, Van Bogaert & Franck (2017)**	587 general hospital nurses (Belgium)	1. *NEO five-factor inventory* 2. *Dutch Interpersonal Behaviour Scale* 3. *Maslach Burnout Inventory (MBI)*	For each additional point on the scale of *neuroticism*, *emotional exhaustion* increased with 6.2%. For *dominant-friendly* behaviour and vector length, every added point caused an increase of *emotional exhaustion* with 38.4%, and 25.2%, respectively. For *submissive-friendly* behaviour, on the other hand, each additional point triggered a decrease in *emotional exhaustion* of 42.5%. For each additional point on *neuroticism*, *depersonalisation* increased with 2.3%. For *dominant-hostile* behaviour and vector length, every added point caused an increase of *depersonalisation* with, respectively, 44.5% and 45.1%. For *conscientiousness*, *submissive-friendly* and *friendly* behaviour, on the other hand, each additional point triggered a decrease in *depersonalisation* of, respectively, 2.5%, 66.0% and 53.6%. *Neuroticism* had a negative correlation; and *openness to experience*, *conscientiousness* and *hostile* behaviour had a positive correlation with the burnout dimension *personal accomplishment*.
2.	**Ang, Dhaliwal, Ayre, Uthaman, Fong, Tien, Zhou & Della (2016)**	1826 nurses (Singapore)	1. *NEO Five-Factor Inventory (NEO-FFI)* 2. *Maslach Burnout Inventory (MBI)*	Nurses with high and very high *neuroticism* were 3.93 times more likely to experience high *emotional exhaustion*, 3.44 times more likely to experience high *depersonalisation*, and 2.38 times more likely to experience low *personal accomplishment*, compared to nurses who had average or below average *neuroticism*. Nursing staff with low or very low *extraversion*, *agreeableness*, and *conscientiousness* were more likely to experience high *emotional exhaustion*, high *depersonalisation*, and low *personal accomplishment*, compared to nurses with average and above average values on the respective personality dimension.
3.	**Gomez-Cantorna, Clemente, Fariña-Lopez, Estevez-Guerra & Gandoy-Crego (2015)**	162 nursing professionals (Spain)	1. *Big Five Inventory* 2. *Maslach Burnout Inventory (MBI)*	Less extroverted respondents exhibited a lower degree of *emotional exhaustion* than more extroverted respondents did. Less agreeable subjects exhibited lower degrees of *emotional exhaustion* than did those of higher average *agreeableness*. High *openness to experience* to change promoted a high degree of *personal accomplishment*. Interviewees with low levels of *neuroticism* also exhibited low degrees of *emotional exhaustion*.

	Authors (year)	Sample (setting)	Instruments	Findings
4.	**Wang, Liu & Wang (2015)**	717 full-time nurses (China)	1. *General Self-Efficacy Scale* 2. *Maslach Burnout Inventory (MBI)*	*Self-efficacy* was significantly correlated with *personal accomplishment*.
5.	**Craigie, Osseiran-Moisson, Hemsworth, Aoun, Francis, Brown, Hegney & Rees (2016)**	273 nurses (Australia)	1. *Spielberger State–Trait Anxiety Inventory Form Y2 (STAI-Y2)* 2. *Professional Quality of Life Scale*	*Trait-negative affect* had significant positive correlation with burnout.
6.	**Geuens, Braspenning, Van Bogaert & Franck (2015)**	222 nurses (Belgium)	1. *Type D personality Scale (DS-14)* 2. *Maslach Burnout Inventory*	A strong positive correlation was observed between *type D personality* and *emotional exhaustion*. This positive relation could also be found for *depersonalisation*. *Personal accomplishment* had a negative correlation with *type D personality*. Nurses with *type D personality* were five times more likely to have a high risk for burnout.
7.	**Kim, Kim, Kim, Kim, Kim & Kim (2017)**	875 clinical nurses (South Korea)	1. *Type D personality Scale (DS-14)* 2. *Job Satisfaction Scale* 3. *Professional Quality of Life Scale*	Participants with *type D personality* had significantly higher scores for burnout than those with non-*type D personality*. Participants with *type D personality* had significantly lower scores for job satisfaction than those with non-*type D personality*.
8.	**De la Fuente-Solana, Gómez-Urquiza, Cañadas, Albendín-García, Ortega-Campos & Cañadas-De la Fuente (2017)**	101 oncology nurses (Spain)	1. *NEO-FFI* 2. *Maslach Burnout Inventory (MBI)*	*Emotional exhaustion* and *depersonalisation* are positively correlated with *neuroticism*; and negatively correlated with *agreeableness*, *conscientiousness*, *extraversion* and *openness to experience*. *Personal accomplishment* has a negative correlation with *neuroticism* and positive correlations with *agreeableness*, *conscientiousness*, *extraversion* and *openness to experience*.

	Authors (year)	Sample (setting)	Instruments	Findings
9.	**Yu, Jiang & Shen (2016)**	650 oncology nurses (China)	1. *Big Five Personality Inventory* 2. *Professional Quality of Life Scale for Nurses*	The variable of burnout was significantly associated with a passive coping style, and a personality trait *neuroticism*. *Neuroticism* was the strongest predictor of burnout. Burnout also had significantly negative relationships with two subscales of empathy.
10.	**Cañadas-De la Fuente, Vargas, San Luis, García, Cañadas & Emilia (2015)**	676 nursing professionals from public health centers (Spain)	1. *Revised NEO Personality Inventory (NEO-FFI)* 2. *Maslach Burnout Inventory (MBI)*	*Neuroticism* has a positive correlation; and *agreeableness* and *extraversion* a negative correlation with *emotional exhaustion*. *Neuroticism* has a positive correlation; and *agreeableness* and *conscientiousness* a negative correlation with *Depersonalisation*. *Neuroticism* has a negative correlation; and *agreeableness*, *conscientiousness*, *extraversion* and *openness to experience* a positive correlation with *Personal accomplishment*.
11.	**Geuens, Leemans, Bogaerts, Van Bogaert & Franck (2015)**	192 midwives (Belgium)	1. *Dutch interpersonal adjective scale (N-IAS)* 2. *Maslach Burnout Inventory (MBI)*	More dominant interpersonal behaviour is associated with greater *emotional exhaustion* and *depersonalisation*, but as the participants' interpersonal behaviour was aimed at co-operation, they experienced less *emotional exhaustion* and *depersonalisation* and more feelings of *personal accomplishment* and job satisfaction.
12.	**Meeusen, Van Dam, Brown-Mahoney, Van Zundert & Knape (2011)**	882 nurse anesthetists (Netherlands)	1. *Myers Briggs Type Indicator (MBTI)* 2. *Three items measuring job satisfaction*	Personality (easy-going, orderly, compassionate, and receptive) is negatively related to burnout. Easy-going had a positive correlation with job satisfaction.
13.	**Mealer, Jones, Newman, McFann, Rothbaum & Moss (2012)**	744 ICU nurses (USA)	1. *Connor-Davidson Resilience Scale* 2. *Maslach Burnout Inventory (MBI)*	Symptoms consistent with burnout syndrome were also significantly lower in highly resilient nurses in all three dimensions.

	Authors (year)	Sample (setting)	Instruments	Findings
14.	**Kennedy (2014)**	72 emergency nurses (Australia)	1. *NEO-PI-3*	***Extraversion*** This study found that emergency nurses scored significantly higher than the population norm for the *extraversion* domain. They scored higher than the population norm for four out of the six facets: *warmth, activity, excitement seeking* and *positive emotions*. These results are reflective of an individual who is sociable, with a happy and 'bubbly' persona. People who score highly on these facets enjoy undertaking new experiences and will engage in activities for the 'thrill'. They tend to lead fast-paced lives and have the ability to interact well with strangers. ***Openness to Experience*** The emergency nurses in this study also scored higher than the population norm on the personality domain of *openness to experience*. Emergency nurses scored significantly higher than the general population on three of the facets – *feelings*, *actions* and *values*. This is reflective of an individual who prefers variety in their experiences and is attuned to their own emotions, having the ability to empathise with others. Higher scores on the *values* facet are associated with broad-minded individuals. ***Agreeableness*** The emergency nurses showed significantly higher scores on the facets *altruism* and *modesty*, and slightly lower scores on the facet *trust*. The more experienced group of nurses also had significant higher scores on the facets of *altruism* and *modesty*. The more experienced sub-group of emergency nurses did reveal significantly higher average scores than the general population on the *straightforwardness* facet. High scores in this facet are associated with individuals who are open and honest. ***Neuroticism* and *Conscientiousness*** This study showed no difference between emergency nurses and general population norms for *neuroticism* and *conscientiousness*; however, the facets within each domain did reveal some variance. Within the *conscientiousness* domain, the facet of *competence* was significantly higher for emergency nurses than population norms. High scores on *competence* are associated with individuals who apply themselves to work, make informed decisions and keep themselves educated and up to date.

Appendix 4: Ethical approval from Stellenbosch University

UNIVERSITEIT STELLENBOSCH UNIVERSITY

Approved

New Application

Health Research Ethics Committee (HREC)

16/01/2018

Project Reference #: 1672

HREC Reference #: S17/10/204

Title: Personality Traits and Job Satisfaction among Psychiatric and Emergency Nurses

Dear Ms Sonet Fitchat,

The **New Application** received on 20/10/2017 was reviewed by members of the **Health Research Ethics Committee (HREC) 2** via **expedited** review procedures on 16/01/2018 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: **This project has approval for 12 months from the date of this letter.**

Please remember to use your **Project Reference Number** [1672] on any documents or correspondence with the HREC concerning your research protocol.

Please note that this decision will be ratified at the next HREC full committee meeting. HREC reserves the right to suspend the approval and to request changes or clarifications from applicants. The coordinator will notify the applicant (and if applicable, the supervisor) of the changes or suspension within 1 day of receiving the notice of suspension from HREC. HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Please note you can submit your progress report through the online ethics application process, available at: https://apply.ethics.sun.ac.za and the application should be submitted to the Committee before the year has expired. Please see Forms and Instructions on our HREC website for guidance on how to submit a progress report.

The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: https://www.westerncape.gov.za/general-publication/health-research-approval-process. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website (www.sun.ac.za/healthresearchethics)

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

STELLENBOSCH UNIVERSITY
Health Research Ethics Committee
16 JAN 2018
STELLENBOSCH UNIVERSITEIT
Gesondheidsnavorsing Etiekkomittee

Yours sincerely,

Mr. Francis Masiye

STELLENBOSCH UNIVERSITY
Health Research Ethics Committee

1 6 JAN 2018

STELLENBOSCH UNIVERSITEIT
Gesondheidsnavorsing Etiekkomitee

The Health Research Ethics Committee complies with the SA National Health Act No. 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles, Structures and Processes 2015 (Department of Health).

Appendix 5: Permission obtained from institutions / Department of Health

Western Cape Government
Health

Enquiries:
E-mail :

Ms S. Fitchat
Stellebosch University

E-mail: sonet@cluedapp.co.za / cornelle@sun.ac.za

Dear Ms Fitchat

RESEARCH PROJECT: Personality Traits and Job Satisfaction Amongst Psychiatric and Emergency Nurses

Your recent letter to the hospital refers.

You are granted permission to proceed with your research, which is valid until **15 January 2019**, subject to the approval of [ ] Nurse Manager

Please note the following:

a) Your research may not interfere with normal patient care.
b) Hospital staff may not be asked to assist with the research.
c) No additional costs to the hospital should be incurred i.e. Lab, consumables or stationary.
d) **No patient folders may be removed from the premises or be inaccessible.**
e) Please provide the research assistant/field worker with a copy of this letter as verification of approval.
f) Confidentiality must be maintained at all times.
g) Should you at any time require photographs of your subjects, please obtain the necessary indemnity forms from our Public Relations Office [ ]
h) Should you require additional research time beyond the stipulated expiry date, please apply for an extension.
i) Please discuss the study with the HOD before commencing.
j) Please introduce yourself to the person in charge of an area before commencing.
k) On completion of your research, please forward any recommendations/findings that can be beneficial to use to take further action that may inform redevelopment of future policy / review guidelines.
l) Kindly submit a copy of the publication or report to this office on completion of the research.

I would like to wish you every success with the project.

Yours sincerely

CHIEF OPERATIONAL OFFICER
Date: 7 February 2018

Western Cape Government
Health

REFERENCE:
Research Projects
ENQUIRIES:
TELEPHONE:

Ethics Reference: **S17/10/204**

TITLE: Personality Traits and Job Satisfaction among Psychiatric and Emergency Nurses.

Dear Ms Sonet Fitchat

PERMISSION TO CONDUCT YOUR RESEARCH AT

1. In accordance with the Provincial Research Policy and , permission is hereby granted for you to conduct the above-mentioned research here at
2. Researchers, in accessing Provincial health facilities, are expressing consent to provide the Department with an electronic copy of the final feedback within six months of completion of research. This can be submitted to the Provincial Research Co-Ordinator (Health.Research@westerncape.gov.za).
3. Please make sure that the questionnaire interviews takes place outside their normal working hours.

MANAGER: MEDICAL SERVICES

CHIEF EXECUTIVE OFFICER
Date: 12 February 2018

Ethics Reference: **S17/10/204**

TITLE: Personality Traits and Job Satisfaction among Psychiatric and Emergency Nurses.

BY

NAME

TITLE CEO

DATE 12 February 2018

Western Cape Government
Health

REFERENCE:
ENQUIRIES:

Stellenbosch University

Faculty of Health Sciences

Tygerberg Hospital

Parow Valley

Cape Town

7535

For attention: Mrs Sonet Fitchat, Mrs Cornelle Young

Re: Personality Traits and Job Satisfaction Among Psychiatric and Emergency Nurses

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to following people to assist you with any further enquiries in accessing the following sites:

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

4. The reference number above should be quoted in all future correspondence.

5. Your approval is valid till the 30th October 2018

Yours sincerely

ACTING DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE: 06/04/18

Western Cape Government
Health

REFERENCE: WC_201801_015
ENQUIRIES:

Stellenbosch University

Faculty of Health Sciences

Tygerberg Hospital

Parow Valley

Cape Town

7535

For attention: Mrs Sonet Fitchat, Mrs Cornelle Young

Re: Personality traits and job satisfaction among psychiatric and emergency nurses

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to following people to assist you with any further enquiries in accessing the following sites:

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

(**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

4. The reference number above should be quoted in all future correspondence.
5. Your approval is valid till the 16 January 2019.

Yours sincerely

ACTING DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE: 2018/05/18

RESEARCH APPLICATION – S FITCHAT

Date: 26 February 2018

FOR APPROVAL

G VAN WYK

NOTES

Locality	•
Value of Study	• Confirmed
Employee	• No
Topic/Title	• Personality traits and job satisfaction among emergency and psychiatric nurses.
Impact	• Nursing staff
Supported by hospital	• Supported by (Nursing manager)

No. 2018/03/01

National Health Research Ethics Committee registration:

6 April 2018

Mrs Sonet Fitchat
Stellenbosch University
Cape Town

Dear Mrs Fitchat

RE: APPLICATION TO CONDUCT RESEARCH:

Title of study: Personality traits and job satisfaction among psychiatric and emergency nurses.

The Research & Ethics Committee of hereby grants permission with no conditions for your study to be conducted at .
Present this letter to the Hospital Manager of the relevant facility to gain permission at hospital level. This approval is valid for a period of one year as of the date of this letter.

1. If patient or institutional confidentiality is breached, is entitled to withdraw this permission immediately. The Higher Education institution under which the research is taking place will be notified, and reserves the right to take legal action against you, should the company feel that this is warranted.

2. An electronic copy of the research report must be submitted to the prior to publication. Failure to do this may result in permission to continue to examination being withdrawn. The Higher Education Institution will be notified of this withdrawal.

3. No direct reference may be made to its subsidiaries or any of its facilities or institutions in the research report or any publications thereafter. The Company and its facilities, patients and staff must be de-identified in the study, and remain so for any other studies which may utilise this information.

4. The research must be completed within the time allotted by the Higher Education Institution. If the research is being done in an individual capacity by an employee of the the research must be conducted within one year of permission being given by the Company, OR the proposed time period must be specified in the proposal, and approved. Permission may be withdrawn if the research extends beyond the approved time period.

5. The researcher must provide the Company with an interim report on the progress of the study every six months for the duration of the study.

6. will not take responsibility for any unforeseen circumstances within its institutions which may materially change the context and potential outcomes of a student's research. Should this occur, the student will be required to approach their Higher Education Institution for guidance around alternative sites.

7. The researcher must provide the electronic research report and any publications for placement on the Company's research register after approval by the associated Higher Education Institution.

8. will not be liable for any costs incurred during or related to this study.

Yours sincerely,

On behalf of the Research and Ethics Committee

RESEARCH OPERATIONS COMMITTEE FINAL APPROVAL OF RESEARCH

Approval number: UNIV-2018-0021

Ms S Fitchat

E mail: sonet@cluedapp.co.za

Dear Ms Fitchat

RE: PERSONALITY TRAITS AND JOB SATISFACTION AMONG PSYCHIATRIC AND EMERGENCY NURSES

The above-mentioned research was reviewed by the Research Operations Committee's delegated members and it is with pleasure that we inform you that your application to conduct this research at Private Hospitals, has been approved, subject to the following:

i) Research may now commence with this FINAL APPROVAL from the Committee.

ii) All information regarding the Company will be treated as legally privileged and confidential.

iii) The Company's name will not be mentioned without written consent from the Committee.

iv) All legal requirements with regards to participants' rights and confidentiality will be complied with.

v) All data extracted may only be used in an anonymised, aggregated format and for the purposes of this specific study as specified in the proposal. The data may under no circumstances be used for any other purpose whatsoever.

vi) The Company must be furnished with a STATUS REPORT on the progress of the study at least annually on 30th September irrespective of the date of approval from the Committee as well as a FINAL REPORT with reference to intention to publish and probable journals for publication, on completion of the study.

vii) A copy of the research report will be provided to the Committee once it is finally approved by the relevant primary party or tertiary institution, or once complete or if discontinued for any reason whatsoever prior to the expected completion date..

viii) The Company has the right to implement any recommendations from the research.

ix) The Company reserves the right to withdraw the approval for research at any time during the process, should the research prove to be detrimental to the subjects/ Company or should the researcher not comply with the conditions of approval.

x) APPROVAL IS VALID FOR A PERIOD OF 36 MONTHS FROM DATE OF THIS LETTER OR COMPLETION OR DISCONTINUATION OF THE STUDY, WHICHEVER IS THE FIRST.

We wish you success in your research.

Yours faithfully

[redacted] 2/6/18

[redacted]
Full member: Research Operations Committee & Medical Practitioner evaluating research applications as per Management and Governance Policy

[redacted]
Chairperson: Research Operations Committee
Date: 16/6/2018

This letter has been anonymised to ensure confidentiality in the research report. The original letter is available with author of research

Appendix 6: Participant information leaflet and consent form

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: Personality traits and job satisfaction among emergency and psychiatric nurses

REFERENCE NUMBER: S17/10/204

PRINCIPAL INVESTIGATOR: Sonet Fitchat

ADDRESS: Division of Nursing
Faculty of Medicine and Health Sciences
Stellenbosch University
Francie van Zijl Drive, Tygerberg, 7505

CONTACT NUMBER: 060 340 1315

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- *The study will be conducted at seven hospitals in Cape Town. Approximately 240 nurses in total will be asked to participate, with about 20-40 nurses from each hospital.*
- *The study aims to find out if nurses with certain personality traits are more satisfied working in certain nursing fields compared to others, e.g. Are extroverted nurses more satisfied working in emergency or psychiatry?*
- *The findings of this study can be used to guide nurses to choose the nursing field in which they would enjoy working the most.*
- *The researcher will explain the most important aspects of the research study to you and you will be asked to sign a consent form.*
- *You will be asked to complete a general information form and a questionnaire which measures different parts of your personality and how satisfied you are with your job. Completing the questionnaire should take about 20 minutes.*
- *You will be provided with an envelope. After you have completed the questionnaire, please place it into the envelope and seal it. Please do not place the signed consent form in the envelope with the questionnaire. This is to ensure that your answers remain anonymous.*

- *The researcher will return at the end of your shift to collect the questionnaires.*

Why have you been invited to participate?

- *The researcher wants to compare the personality types and amount of job satisfaction of nurses who work in emergency and psychiatry.*

What will your responsibilities be?

- *To complete a questionnaire honestly and to the best of your ability.*

Will you benefit from taking part in this research?

- *This research can benefit nurses who are not satisfied working in their nursing fields, since it could direct them to the nursing fields which would better suit their personality types , and where they might be more satisfied*

Are there any risks involved in your taking part in this research?

- *There are no foreseeable risks for those who take part in this study.*

If you do not agree to take part, what alternatives do you have?

- *You do not have to take part in this research at all, as it is wholly your decision to do so or not*

What will happen in the unlikely event of some form injury occurring as a direct result of your taking part in this research study?

- *The researcher does not foresee that answering the two questionnaires would result in any psychological distress for the participants, but if any participants do experience any negative responses to the questions, they will be referred to their workplace's counselling facility for psychological counselling.*

Will you be paid to take part in this study and are there any costs involved?

- *There are no costs involved for you to take part in this study.*
- *Nurses who participate in the study will be compensated for their time with a small snack.*

Is there any thing else that you should know or do?

- *You can contact Sonet Fitchat at 060 340 1315 or Cornelle Young at 021 938 9761 if you have any further queries or encounter any problems.*
- *You can contact the Health Research Ethics Committee at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your researcher.*
- *You will receive a copy of this information and consent form for your own records.*
- *The researcher will publish a summary of the findings on http://research.cluedapp.co.za when the study has been completed, where you may view the results. Only general results will be published, and the names of participating facilities will not be mentioned*

Declaration by participant

By signing below, I ..... agree to take part in a research study entitled: Personality traits and job satisfaction among emergency and psychiatric nurses

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, as agreed to.

Signed at (*place*) ..... on (*date*) .....

.....
Signature of participant

.....
Signature of witness

Declaration by investigator

I *(name)* ..... declare that:

- I explained the information in this document to .....
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above.
- I did not use an interpreter.

Signed at (*place*) ..... on (*date*) .....

.....
Signature of investigator

.....
Signature of witness

Appendix 7: General information sheet of respondents

GENERAL INFORMATION

Please choose the responses that are relevant to you and mark them with an **X**.

Gender

- Male ☐
- Female ☐

Age

- Under 25 ☐
- 25-34 ☐
- 35-44 ☐
- 45-54 ☐
- 55 and over ☐

Employer

- Public ☐
- Private ☐

Field of employment

- Emergency ☐
- Psychiatry ☐

Category of nurse

- Registered Nurse ☐
- Enrolled Nurse ☐
- Enrolled Nursing Assistant ☐

Amount of time working in current specialty (include time worked in same specialty in other facilities)

- 6 months - 2 years ☐
- 3 - 5 years ☐
- 6 - 10 years ☐
- 11 - 15 years ☐
- 16 - 20 years ☐
- More than 20 years ☐

Choice of ward/unit

- I chose to work in this ward/unit ☐
- I did not choose to work in this ward/unit. The hospital placed me here ☐

Appendix 8: Questionnaire: *Swedish universities Scales of Personality*

THE CORRELATION BETWEEN PERSONALITY TRAITS AND JOB SATISFACTION OF PSYCHIATRIC AND EMERGENCY NURSES IN THE NORTHERN AND SOUTHERN SUBURBS OF CAPE TOWN

INSTRUCTIONS:

Below you will find a number of statements.

Choose the response that matches how you **usually** feel and mark it with an **X**.

For example:

	Does not apply at all	Does not apply very well	Applies pretty much	Applies completely
I enjoy outdoor activities	☐	☒	☐	☐

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
Payment for the hours I work	☐	☐	☐	☒	☐

Please answer all the questions. Only give one answer per question.
Work fast and don't hesitate too long before answering.

		Does not apply at all	Does not apply very well	Applies pretty much	Applies completely
1.	I don't have much self-confidence	☐	☐	☐	☐
2.	I get tired and hurried too easily	☐	☐	☐	☐
3.	I find it hard to object if I'm treated badly at a restaurant	☐	☐	☐	☐
4.	I have a tendency to act on the spur of the moment without really thinking ahead	☐	☐	☐	☐
5.	I'm always keen on trying new things	☐	☐	☐	☐
6.	It is easy for me to get close to people	☐	☐	☐	☐
7.	I'm probably the kind of person who is excessively sensitive and easily hurt	☐	☐	☐	☐
8.	I don't mind being interrupted when I'm working with something	☐	☐	☐	☐

		Does not apply at all	Does not apply very well	Applies pretty much	Applies completely
9.	Even if I know I'm right, I often have great difficulty being firm	☐	☐	☐	☐
10.	I often get so excited about new ideas and suggestions that I forget to check if there are any disadvantages	☐	☐	☐	☐
11.	I prefer people who do exciting and unexpected things	☐	☐	☐	☐
12.	I avoid people who are interested in my personal life	☐	☐	☐	☐
13.	I seldom dare to express myself in a discussion because I have the feeling that people think my views are not worth anything	☐	☐	☐	☐
14.	In order to get something done I have to spend more energy than most others do	☐	☐	☐	☐
15.	When someone jumps the queue in front of me, I usually object	☐	☐	☐	☐
16.	I often embark on things too hastily	☐	☐	☐	☐
17.	I probably have an unusually great need for change	☐	☐	☐	☐
18.	I feel uncomfortable when people take me into their confidence	☐	☐	☐	☐
19.	It probably takes me an unusually long time to get over unpleasant events	☐	☐	☐	☐
20.	I can usually concentrate on what I'm doing even if the environment is distracting	☐	☐	☐	☐
21.	I feel embarrassed about complaining when I get too little change back	☐	☐	☐	☐
22.	I'm the sort of person who takes things as they come	☐	☐	☐	☐
23.	I prefer to seek out places where exciting things take place	☐	☐	☐	☐
24.	I feel best when I keep people at a certain distance	☐	☐	☐	☐

		Does not apply at all	Does not apply very well	Applies pretty much	Applies completely
25.	I often feel uneasy when I meet people I don't know too well	☐	☐	☐	☐
26.	I easily feel pressure when told to speed up my work	☐	☐	☐	☐
27.	When someone is teasing me, I never find a good answer until later	☐	☐	☐	☐
28.	I usually 'talk before I think'	☐	☐	☐	☐
29.	I almost always feel a need for more action	☐	☐	☐	☐
30.	I prefer not to get involved in other people's problems	☐	☐	☐	☐
31.	I often worry about things that other people look upon as trifles	☐	☐	☐	☐
32.	I feel calm and secure even when I'm facing new tasks	☐	☐	☐	☐
33.	I sometimes wish that I could speak frankly when I dislike something	☐	☐	☐	☐
34.	When I make a decision I usually make it quickly	☐	☐	☐	☐
35.	Sometimes I like doing things just for the thrill of it	☐	☐	☐	☐
36.	I'm probably reserved and a little cold rather than kind and warm	☐	☐	☐	☐
37.	I worry far in advance when I'm going to get started on something	☐	☐	☐	☐
38.	I think I have less energy than most people I know	☐	☐	☐	☐
39.	I find it difficult to assert my opinions	☐	☐	☐	☐
40.	I consider myself an impulsive person	☐	☐	☐	☐
41.	To be on the move, travelling, change and excitement – that's the kind of life I like	☐	☐	☐	☐
42.	People often come to me with their troubles	☐	☐	☐	☐

Appendix 9: Answer key: *Swedish universities Scales of Personality*

Psychic Trait Anxiety

1. "I don't have much self-confidence"
7. "I'm probably the kind of person who is excessively sensitive and easily hurt"
13. "I seldom dare to express myself in a discussion because I have the feeling that people think my views are not worth anything"
19. "It probably takes me an unusually long time to get over unpleasant events"
25. "I often feel uneasy when I meet people I don't know too well"
31. "I often worry about things that other people look upon as trifles"
37. "I worry far in advance when I'm going to get started on something"

Stress Susceptibility

2. "I get tired and hurried too easily"
8. "I don't mind being interrupted when I'm working with something"
14. "In order to get something done I have to spend more energy than most others do"
20. "I can usually concentrate on what I'm doing even if the environment is distracting"
26. "I easily feel pressure when told to speed up my work"
32. "I feel calm and secure even when I'm facing new tasks"
38. "I think I have less energy than most people I know"

Lack of Assertiveness

3. "I find it hard to object if I'm treated badly at a restaurant"
9. "Even if I know I'm right, I often have great difficulty being firm"
15. "When someone jumps the queue in front of me, I usually object"
21. "I feel embarrassed about complaining when I get too little change back"
27. "When someone is teasing me, I never find a good answer until later"
33. "I sometimes wish that I could speak frankly when I dislike something"
39. "I find it difficult to assert my opinions"

Impulsiveness

4. "I have a tendency to act on the spur of the moment without really thinking ahead"
10. "I often get so excited about new ideas and suggestions that I forget to check if there are any disadvantages"
16. "I often embark on things too hastily"
22. "I'm the sort of person who takes things as they come"
28. "I usually 'talk before I think'"
34. "When I make a decision I usually make it quickly"
40. "I consider myself an impulsive person"

Adventure Seeking

5. "I'm always keen on trying new things"
11. "I prefer people who do exciting and unexpected things"
17. "I probably have an unusually great need for change"
23. "I prefer to seek out places where exciting things take place"
29. "I almost always feel a need for more action"
35. "Sometimes I like doing things just for the thrill of it"
41. "To be on the move, travelling, change and excitement—that's the kind of life I like"

Detachment

6. "It is easy for me to get close to people"
12. "I avoid people who are interested in my personal life"
18. "I feel uncomfortable when people take me into their confidence"
24. "I feel best when I keep people at a certain distance"
30. "I prefer not to get involved in other people's problems"
36. "I'm probably reserved and a little cold rather than kind and warm"
42. "People often come to me with their troubles"

Appendix 10: Questionnaire: *Measure of Job Satisfaction*

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
43.	Payment for the hours I work	☐	☐	☐	☐	☐
44.	The degree to which I feel part of a team	☐	☐	☐	☐	☐
45.	The opportunities I have to discuss my concerns	☐	☐	☐	☐	☐
46.	My salary/pay scale	☐	☐	☐	☐	☐
47.	Being funded for courses	☐	☐	☐	☐	☐
48.	The time available to get through my work	☐	☐	☐	☐	☐
49.	The quality of work with patients/clients	☐	☐	☐	☐	☐
50.	The standard of care given to patients/clients	☐	☐	☐	☐	☐
51.	The degree to which I am fairly paid for what I contribute to this organisation	☐	☐	☐	☐	☐
52.	The amount of support and guidance I receive	☐	☐	☐	☐	☐
53.	The way that patients/clients are cared for	☐	☐	☐	☐	☐
54.	My prospects for promotion	☐	☐	☐	☐	☐
55.	The people I talk to and work with	☐	☐	☐	☐	☐
56.	The amount of time spent on administration	☐	☐	☐	☐	☐

		Very dissatisfied	Dissatisfied	satisfied nor dissatisfied	Satisfied	Very satisfied
57.	My workload	☐	☐	☐	☐	☐
58.	My prospects for continued employment	☐	☐	☐	☐	☐
59.	The standard of care that I am currently able to give	☐	☐	☐	☐	☐
60.	The opportunities I have to advance my career	☐	☐	☐	☐	☐
61.	The extent to which I have adequate training for what I do	☐	☐	☐	☐	☐
62.	Overall staffing levels	☐	☐	☐	☐	☐
63.	The feeling of worthwhile accomplishment I get from my work	☐	☐	☐	☐	☐
64.	The degree of respect and fair treatment I receive from my boss	☐	☐	☐	☐	☐
65.	The degree of time available to finish everything that I have to do	☐	☐	☐	☐	☐
66.	What I have accomplished when I go home at the end of the day	☐	☐	☐	☐	☐
67.	The amount of job security I have	☐	☐	☐	☐	☐
68.	Time off for in-service training	☐	☐	☐	☐	☐
69.	The amount of personal growth and development I get from my work	☐	☐	☐	☐	☐

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
70.	The extent to which my job is varied and interesting	☐	☐	☐	☐	☐
71.	The support available to me in my job	☐	☐	☐	☐	☐
72.	The amount of independent thought and action I can exercise in my work	☐	☐	☐	☐	☐
73.	The opportunity to attend courses	☐	☐	☐	☐	☐
74.	The possibilities for a career in my field	☐	☐	☐	☐	☐
75.	The general standard of care given in this unit	☐	☐	☐	☐	☐
76.	The outlook for any professional group/branch of nursing	☐	☐	☐	☐	☐
77.	The overall quality of the supervision I receive in my work	☐	☐	☐	☐	☐
78.	The amount of pay I receive	☐	☐	☐	☐	☐
79.	The hours I work	☐	☐	☐	☐	☐
80.	The extent to which I can use my skills	☐	☐	☐	☐	☐
81.	The amount of challenge in my job	☐	☐	☐	☐	☐
82.	The time available for patient/client care	☐	☐	☐	☐	☐
83.	How secure things look for me in the future of this organisation	☐	☐	☐	☐	☐

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
84.	The contact I have with colleagues	☐	☐	☐	☐	☐
85.	Patients are receiving the care that they need	☐	☐	☐	☐	☐
86.	Overall, how satisfied are you with your job?	☐	☐	☐	☐	☐

Appendix 11: Answer key: *Measure of Job Satisfaction*

THE DAPHNE HEALD RESEARCH UNIT

The Royal College of Nursing of the United Kingdom

Measure of Job Satisfaction (MJS)

Introduction

The MJS was developed from the responses of a random sample of more than 700 community nurse members of the Royal College of Nursing to an item bank derived from the literature and from talking to key informants.[1]

The MJS is a group measure designed to monitor the morale of community nurses following changes in legislation and the delivery of health and social care in the U.K.[2] Norms for different groups of U.K. nurses are enclosed. The MJS has also been designed for anonymous completion and takes approximately 10 minutes to complete.

Coding and Scoring Key

This updated version of the MJS was developed using a second sample of 650 community nursing staff. It comprises 7 subscales which may be combined to give a measure of 'Overall Job Satisfaction'. There are 43 items all of which are scored as follows:

Very satisfied	5
Satisfied	4
Neither satisfied nor dissatisfied	3
Dissatisfied	2
Very dissatisfied	1

Analysis

The MJS is sensitive to differences in satisfaction over time and to differences in level of satisfaction between different groups of staff (Figure 1). Therefore it should be analysed according to job title. The first 43 items form 7 subscales of job satisfaction. Item mean scores are calculated for each subscale by dividing the sum of item scores by the number of items comprising that scale. For example, the 'Satisfaction with Standards' scale consists of 6 items. The item mean score would be the sum of all items divided by 6. Similarly 'Overall Job Satisfaction' is the sum of the first 43 items divided by 43.

The last question, item 44, is included to give an indication of global satisfaction. With large samples it can be used to give an indication of the relative importance of different aspects of job satisfaction. For example, a larger correlation between 'Personal Satisfaction' and item 44 than between 'Satisfaction with Pay' and item 44 would suggest that personal satisfaction may be more important than pay. Such relative importance may vary between different groups of staff and/or over time.

Personal Satisfaction

63. The feeling of worthwhile accomplishment I get from my work
69. The amount of personal growth and development I get from my work
70. The extent to which my job is varied and interesting
72. The amount of independent thought and action I can exercise in my work
80. The extent to which I can use my skills
81. The amount of challenge in my job

Satisfaction with Workload

48. The time available to get through my work
56. The amount of time spent on administration
57. My workload
62. Overall staffing levels
65. The degree of time available to finish everything that I have to do
66. What I have accomplished when I go home at the end of the day
79. The hours I work
82. The time available for patient/client care

Satisfaction with Professional Support

44. The degree to which I feel part of a team
45. The opportunities I have to discuss my concerns
52. The amount of support and guidance I receive
55. The people I talk to and work with
64. The degree of respect and fair treatment I receive from my boss
71. The support available to me in my job
77. The overall quality of the supervisions I receive in my work
84. The contact I have with colleagues

Satisfaction with Training

47. Being funded for courses
60. The opportunities I have to advance my career
61. The extent to which I have adequate training for what I do
68. Time off for in-service training
73. The opportunity to attend courses

Satisfaction with Pay

43. Payment for the hours I work
46. My salary/pay scale
51. The degree to which I am fairly paid for what I contribute to this organisation
78. The amount of pay I receive

Satisfaction with Prospects

54. My prospects for promotion
58. My prospects for continued employment
67. The amount of job security I have
74. The possibilities for a career in my field
76. The outlook for my professional group/branch of nursing
83. How secure things look for me in the future of this organisation

Satisfaction with Standards of Care

49. The quality of work with patients/clients
50. The standard of care given to patients/clients
53. The way that patients/clients are cared for
59. The standard of care that I am currently able to give
75. The general standard of care given in this unit
85. Patients are receiving the care that they need

Overall Satisfaction

86. Overall, how satisfied are you with your job?

Appendix 12: Permission to use *Swedish universities Scales of Personality*

Gmail **Sonet Fitchat <sonetfitchat@gmail.com>**

Permission to use SSP for research
3 messages

Sonet Fitchat <sonetfitchat@gmail.com> Thu, Mar 30, 2017 at 12:30 PM
To: Gunnar.Edman@ki.se

Dear Professor Gunnar Edman,

I am currently doing my Masters degree in Psychiatric Nursing at Stellenbosch University, South Africa.

I would like to request permission to use the Swedish Universities Scales of Personality for my research.

My proposed topic is "The correlation between the personality types of nursing practitioners and job satisfaction in selected nursing fields".

I am a registered nurse, not a qualified psychologist or psychometrist, so is it permitted for me to administer the test?

If permission is granted, would it perhaps be possible for you to inform me where I might be able to download an English version of the questionnaire and the scoring algorithm?

Thank you in advance.

Kind regards,
Sonet Fitchat

Gunnar Edman <Gunnar.Edman@ki.se> Wed, Apr 5, 2017 at 8:32 AM
To: Sonet Fitchat <sonetfitchat@gmail.com>

SSP is a free-ware. You're approved!

Attached, please find an English version of the inventory.

There is also a syntax for scoring the inventory for SPSS. If you want a copy, please contact med.

Best regards!

Gunnar Edman

Appendix 13: Permission to use *Measure of Job Satisfaction*

Gmail

Sonet Fitchat <sonetfitchat@gmail.com>

Permission to use Measure of Job Satisfaction
2 messages

Sonet Fitchat <sonetfitchat@gmail.com> Wed, Jun 21, 2017 at 4:34 PM
To: m.traynor@mdx.ac.uk

Dear Proffesor Traynor,

I am currently doing my Masters degree in Psychiatric Nursing at Stellenbosch University, South Africa.

I would like to request permission to use the Measure of Job Satisfaction for my research.

My proposed topic is "The correlation between personality traits and job satisfaction of psychiatric and emergency nurses in public and private hospitals in the Western Cape".

Kind regards,
Sonet Fitchat

Michael Traynor <M.Traynor@mdx.ac.uk> Wed, Jun 21, 2017 at 6:25 PM
To: Sonet Fitchat <sonetfitchat@gmail.com>

Dear Sonet

I am happy for you to use the MJS in your Masters project. You will find all the material you need on my ResearchGate pages.

good luck with the research,

Michael

Appendix 14: Results of the pilot study

Table A2: Personality traits and job satisfaction of nurses working in the emergency department of the pilot study

			Job Satisfaction Subscales							
	Variables	**Spearman's Rank Correlation Coefficient**	***Personal Satisfaction***	***Satisfaction with Workload***	***Satisfaction with Professional Support***	***Satisfaction with Training***	***Satisfaction with Pay***	***Satisfaction with Prospects***	***Satisfaction with Standards of Care***	***Overall Satisfaction***
Personality Traits	***Psychic Trait Anxiety***	Correlation Coefficient	-0.197	-0.236	-0.284	-0.016	-0.401	-0.264	-0.134	-0.160
		Sig. (2-tailed)	0.561	0.484	0.398	0.963	0.222	0.433	0.695	0.638
	Stress Susceptibility	Correlation Coefficient	-0.253	-0.459	-0.516	-0.125	-0.159	-0.116	-0.194	-0.273
		Sig. (2-tailed)	0.453	0.155	0.104	0.714	0.642	0.734	0.568	0.416
	Lack of Assertiveness	Correlation Coefficient	-0.070	-0.203	-0.302	0.035	-0.164	0.028	-0.038	-0.005
		Sig. (2-tailed)	0.838	0.550	0.366	0.919	0.630	0.935	0.913	0.989
	Impulsiveness	Correlation Coefficient	0.212	0.286	0.000	0.062	-0.102	-0.039	0.205	0.224
		Sig. (2-tailed)	0.530	0.393	1.000	0.855	0.765	0.909	0.546	0.509
	Adventure-seeking	Correlation Coefficient	-0.034	0.018	-0.292	0.233	-0.166	0.160	-0.062	-0.009
		Sig. (2-tailed)	0.920	0.957	0.383	0.490	0.627	0.638	0.856	0.979
	Detachment	Correlation Coefficient	-0.269	0.110	-0.702 [9]	-0.009	0.028	-0.123	-0.083	-0.251
		Sig. (2-tailed)	0.423	0.748	0.016	0.979	0.936	0.718	0.809	0.457

[9] Correlation is significant at the 0.05 level (2-tailed).

Table A3: Personality traits and job satisfaction of nurses working in psychiatric departments of the pilot study

			Job Satisfaction Subscales							
	Variables	**Spearman's Rank Correlation Coefficient**	***Personal Satisfaction***	***Satisfaction with Workload***	***Satisfaction with Professional Support***	***Satisfaction with Training***	***Satisfaction with Pay***	***Satisfaction with Prospects***	***Satisfaction with Standards of Care***	***Overall Satisfaction***
Personality Traits	***Psychic Trait Anxiety***	Correlation Coefficient	-0.306	-0.538 [10]	-0.677 [11]	-0.437	-0.493	-0.308	-0.554 [10]	-0.695 [11]
		Sig. (2-tailed)	0.287	0.047	0.008	0.118	0.073	0.284	0.040	0.006
	Stress Susceptibility	Correlation Coefficient	-0.178	-0.555 [10]	-0.373	-0.409	-0.669 [11]	-0.148	-0.255	-0.380
		Sig. (2-tailed)	0.544	0.039	0.189	0.146	0.009	0.613	0.379	0.181
	Lack of Assertiveness	Correlation Coefficient	0.542 [10]	0.346	0.142	0.171	0.499	0.147	-0.169	0.247
		Sig. (2-tailed)	0.045	0.226	0.628	0.560	0.069	0.617	0.564	0.395
	Impulsiveness	Correlation Coefficient	-0.163	-0.137	-0.401	-0.292	-0.200	-0.054	-0.219	-0.307
		Sig. (2-tailed)	0.577	0.641	0.156	0.311	0.493	0.854	0.452	0.286
	Adventure-seeking	Correlation Coefficient	-0.234	0.032	-0.173	-0.260	-0.156	-0.176	-0.138	-0.172
		Sig. (2-tailed)	0.422	0.913	0.553	0.369	0.595	0.548	0.637	0.556
	Detachment	Correlation Coefficient	-0.243	-0.272	-0.459	-0.009	-0.247	-0.147	-0.313	-0.447
		Sig. (2-tailed)	0.403	0.347	0.098	0.976	0.394	0.616	0.276	0.109

[10] Correlation is significant at the 0.05 level (2-tailed).
[11] Correlation is significant at the 0.01 level (2-tailed).

Appendix 15: Data dictionary

Variable Description	Variable Type	Level of Measurement	Codes
Language of Questionnaire	Integer	Nominal	English = 1 Afrikaans = 2 IsiXhosa = 3
Gender	Integer	Nominal (dichotomous)	Male = 1 Female = 2
Age	Integer	Ordinal	Under 25 = 1 25-34 = 2 35-44 = 3 45-54 = 4 55 and over = 5
Employer	Integer	Nominal (dichotomous)	Public = 1 Private = 2
Field of Employment	Integer	Nominal (dichotomous)	Emergency = 1 Psychiatry = 2
Category of Nurse	Integer	Ordinal	Registered Nurse = 1 Enrolled Nurse = 2 Enrolled Nursing Assistant = 3
Amount of Time Working in Current Specialty	Integer	Ordinal	6 months - 2 years = 1 3 - 5 years = 2 6 - 10 years = 3 11 - 15 years = 4 16 - 20 years = 5 More than 20 years = 6
Choice of ward/unit	Integer	Nominal (dichotomous)	I chose = 1 I did not choose = 2

Appendix 16: Cronbach's α coefficient values according to language

Table A4: *Swedish universities Scales of Personality*

Personality Trait Subscales	Emergency and Psychiatry Groups: English (n = 62)	Emergency and Psychiatry Groups: Afrikaans (n = 16)	Only Psychiatry Group: IsiXhosa (n = 3)	Emergency and Psychiatry Groups: English, Afrikaans and isiXhosa (n = 81)
Psychic Trait Anxiety	0.65	0.58	0.86	0.65
Stress Susceptibility	0.63	0.79	0.38	0.66
Lack of Assertiveness	0.48	0.80	0.95	0.57
Impulsiveness	0.62	0.76	-0.99	0.63
Adventure-seeking	0.57	0.56	0.82	0.60
Detachment	0.41	0.53	0.78	0.47
Overall	0.80	0.70	0.93	0.80

Table A5: *Measure of Job Satisfaction*

Job Satisfaction Subscales	Emergency and Psychiatry Groups: English (n = 62)	Emergency and Psychiatry Groups: Afrikaans (n = 16)	Only Psychiatry Group: IsiXhosa (n = 3)	Emergency and Psychiatry Groups: English, Afrikaans and isiXhosa (n = 81)
Personal Satisfaction	0.89	0.91	0.91	0.89
Satisfaction with Workload	0.88	0.80	0.93	0.87
Satisfaction with Professional Support	0.92	0.86	0.48	0.90
Satisfaction with Training	0.78	0.90	0.63	0.79
Satisfaction with Pay	0.94	0.93	2.22E-15 [12]	0.94
Satisfaction with Prospects	0.76	0.69	0.89	0.75
Satisfaction with Standards of Care	0.91	0.84	0.84	0.87
Overall Satisfaction	0.97	0.94	0.94	0.96

[12] Results are not reliable as sample consisted of only three respondents, and *satisfaction with pay* subscale consisted of only four items.

Appendix 17: Skewness, kurtosis and Shapiro-Wilk test results

Table A6: Skewness and kurtosis results for personality traits of emergency group

Personality Trait Variables	Skewness	SE of Skewness	Kurtosis	SE of Kurtosis
Psychic Trait Anxiety	0.034	0.374	-0.767	0.733
Stress Susceptibility	0.566	0.374	0.554	0.733
Lack of Assertiveness	0.518	0.374	-0.058	0.733
Impulsiveness	-0.180	0.374	0.297	0.733
Adventure-seeking	-0.254	0.374	0.274	0.733
Detachment	0.263	0.374	-1.278	0.733

Table A7: Shapiro-Wilk test results for personality traits of emergency group

Personality Trait Variables	Shapiro-Wilk		
	Statistic	*df*	*Sig.*
Psychic Trait Anxiety	.972	40	.410
Stress Susceptibility	.962	40	.191
Lack of Assertiveness	.966	40	.271
Impulsiveness	.980	40	.698
Adventure-seeking	.972	40	.428
Detachment	.919	40	.007

Table A8: Skewness and kurtosis results for job satisfaction of emergency group

Job Satisfaction Variables	Skewness	SE of Skewness	Kurtosis	SE of Kurtosis
Personal Satisfaction	-1.019	0.374	0.603	0.733
Satisfaction with Workload	-0.210	0.374	-0.846	0.733
Satisfaction with Professional Support	-0.733	0.374	-0.312	0.733
Satisfaction with Training	-0.423	0.374	-0.774	0.733
Satisfaction with Pay	0.225	0.374	-1.257	0.733
Satisfaction with Prospects	-0.765	0.374	0.943	0.733
Satisfaction with Standards of Care	-1.166	0.374	1.061	0.733
Overall Satisfaction	-0.660	0.374	-0.063	0.733

Table A9: Shapiro-Wilk test results for job satisfaction of emergency group

Job Satisfaction Variables	Shapiro-Wilk		
	Statistic	*df*	*Sig.*
Personal Satisfaction	.903	40	.002
Satisfaction with Workload	.963	40	.218
Satisfaction with Professional Support	.931	40	.017
Satisfaction with Training	.946	40	.056
Satisfaction with Pay	.928	40	.014
Satisfaction with Prospects	.863	40	.000
Satisfaction with Standards of Care	.870	40	.000
Overall Satisfaction	.952	40	.089

Table A10: Skewness and kurtosis results for personality traits of psychiatry group

Personality Trait Variables	SE of Skewness	Kurtosis	SE of Kurtosis	SE of Skewness
Psychic Trait Anxiety	0.114	0.369	-0.825	0.724
Stress Susceptibility	-0.236	0.369	0.426	0.724
Lack of Assertiveness	-0.046	0.369	-0.525	0.724
Impulsiveness	0.329	0.369	-1.122	0.724
Adventure-seeking	-0.029	0.369	0.642	0.724
Detachment	0.071	0.369	-0.363	0.724

Table A11: Shapiro-Wilk test results for personality traits of psychiatry group

Personality Trait Variables	Shapiro-Wilk		
	Statistic	*df*	*Sig.*
Psychic Trait Anxiety	.964	41	.217
Stress Susceptibility	.973	41	.425
Lack of Assertiveness	.979	41	.637
Impulsiveness	.927	41	.011
Adventure-seeking	.980	41	.673
Detachment	.977	41	.557

Table A12: Skewness and kurtosis results for job satisfaction of psychiatry group

Job Satisfaction Variables	SE of Skewness	Kurtosis	SE of Kurtosis	SE of Skewness
Personal Satisfaction	-1.094	0.369	0.889	0.724
Satisfaction with Workload	-1.155	0.369	3.177	0.724
Satisfaction with Professional Support	-0.622	0.369	0.220	0.724
Satisfaction with Training	-0.573	0.369	-0.566	0.724
Satisfaction with Pay	0.310	0.369	-1.215	0.724
Satisfaction with Prospects	-0.818	0.369	1.174	0.724
Satisfaction with Standards of Care	-1.274	0.369	2.517	0.724
Overall Satisfaction	-0.923	0.369	0.747	0.724

Table A13: Shapiro-Wilk test results for job satisfaction of psychiatry group

Job Satisfaction Variables	Shapiro-Wilk		
	Statistic	*df*	*Sig.*
Personal Satisfaction	.874	41	.000
Satisfaction with Workload	.918	41	.006
Satisfaction with Professional Support	.959	41	.149
Satisfaction with Training	.941	41	.034
Satisfaction with Pay	.920	41	.007
Satisfaction with Prospects	.820	41	.000
Satisfaction with Standards of Care	.914	41	.004
Overall Satisfaction	.934	41	.020

Appendix 18: Declarations by language and technical editors

CERTIFICATE OF TRANSLATION

33 Bracken Street
Protea Heights
7560
14 January 2018

I, Catarina Petronella Roodt, confirm that the Afrikaans translation of the following documents to be used in the study titled *Personality Traits and Job Satisfaction among Nurses Working in Emergency and Psychiatric Departments* is true and accurate to the best of my abilities.

- The informed consent form
- The general information form
- The Swedish universities Scales of Personality
- The Measure of Job Satisfaction

The documents were independently translated twice from English to Afrikaans. The two Afrikaans documents were compared and the best sentences were selected and combined into a new document. This new document was back-translated into English, and was compared to the original English document.

Yours sincerely,

C.P. Roodt.

Catarina Petronella Roodt
BA (Afr)

Certificate of Translation

I, Marcus Sapire, verify that the Swedish Universities Scales of Personality, Measure of Job Satisfaction, and the informed consent form for the study titled "The Personality Traits of Psychiatric and Emergency Nurses" have been translated into Xhosa by a qualified and experienced Xhosa translator.

Two translators independently translated the documents to Xhosa, and the best translations were combined into one document. This document was then back-translated into English. The back-translated document was compared to the original English document, and any differences were noted and the most appropriate translation determined.

The translations have also been independently checked and are accurate and correct to the best of my ability.

Yours sincerely,
Marcus Sapire,
CEO, Bangula Lingo Centre
www.blc.co.za

0861 Bangula - 0861 226 4852
Fax: 086 615 4966
Email: info@blc.co.za

Ekspa Bldg, Attie Fourie St
Vanderbijlpark
Gauteng
1911

28 August 2018

To whom it may concern,

This letter confirms that I, Retha Fitchat, assisted with language editing of this thesis titled "Personality traits and job satisfaction among nurses working in emergency and psychiatric departments" for submission to the University of Stellenbosch for Sonet Fitchat.

Yours sincerely,

R. Fitchat

Retha Fitchat
B.A. (Hons), B.Ed.
Editor, Mooivaal Media